DOCUMENT RESUME

ED 197 899 RC 012 490

AUTHOR Skliar, Norman
TITLE The Homestead Ecology Experience for Special Education Students and Teachers. The Final Evaluative Report, March 1, 1979 through September 30, 1980.
INSTITUTION Nassau County Board of Cooperative Educational Services, Westbury, N.Y.
SPONS AGENCY New York State Education Dept., Albany. Div. of Special Education.
PUB DATE 80
NOTE 164p.: Contains marginal legibility.

EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS Deafness; Elementary Secondary Education; Emotional Disturbances; Environmental Education; *Experiential Learning; *Interdisciplinary Approach; Learning Activities; Learning Disabilities; Mental Retardation; Multimedia Instruction; Neurological Impairments; Nontraditional Education; *Outdoor Education; Physical Disabilities; *Skill Development; *Special Education; *Special Programs; Teacher Workshops
IDENTIFIERS *Homestead Ecology Experience; New York

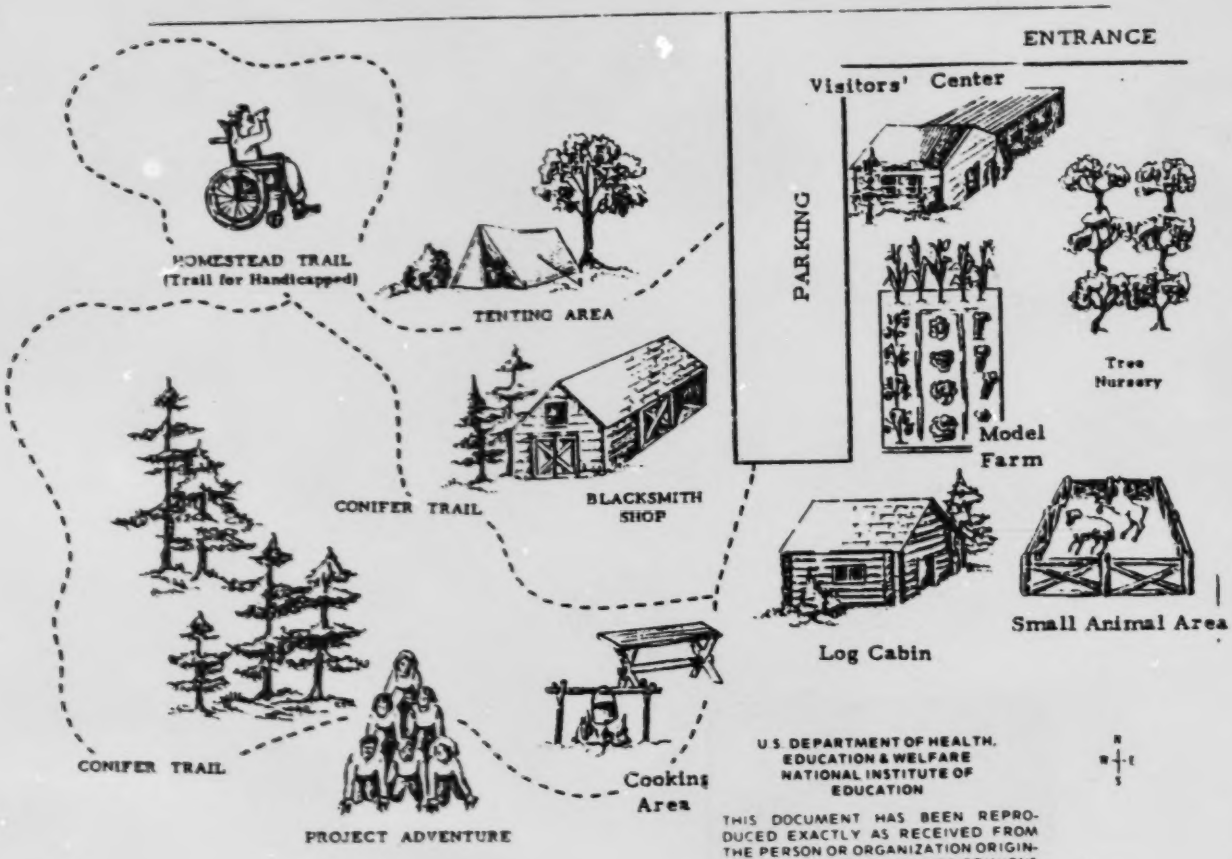
ABSTRACT

Efforts by Nassau County, New York educators in the development, implementation, and evaluation of a replicable program for 2,500 special education students and their teachers in a comprehensive outdoor education program are described. Three major components of the project are listed as: (1) active student participation in activity-oriented interdisciplinary Homestead Ecology Program; (2) development and use of multi-media special education/homestead ecology curriculum materials; and (3) in-service training of special education teachers in outdoor education/homestead ecology. The groups served are identified as: emotionally disturbed; learning disabled; deaf/multi-handicapped; trainable mentally retarded; physically handicapped; and neurologically handicapped. Discussions are included on the pilot program which began in the Spring of 1979, and on the student, curriculum, and teacher components of the project itself, which was carried out from July 1, 1979 to June 30, 1980. Evaluations of the different components indicate that all students benefited from the program, with different groups of students showing growth in different skills. Teachers expressed positive assessments of all components of the program. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED197899

BOCES BROOKVILLE ENVIRONMENTAL EDUCATION CENTER
BROOKVILLE, NEW YORK



U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

THE BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY

in cooperation with
THE NEW YORK STATE DEPARTMENT OF EDUCATION
Division of Special Education

presents

The Final Evaluative Report of THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS

1979-1980

Title VI-B Project No. 28-90-00-39-2

RC012490

BEST COPY AVAILABLE

THE BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY

in cooperation with

THE NEW YORK STATE DEPARTMENT OF EDUCATION
Division of Special Education

presents

THE FINAL EVALUATIVE REPORT

of

THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS

Title VI-B Project No. 28-90-00-39-2

March 1, 1979 through September 30, 1980

Submitted by

Norman Skliar, Associate Administrator
Outdoor and Environmental Education, Nassau BOCES

Frank J. Guerrero, Evaluator, Nassau BOCES

BEST COPY AVAILABLE

BEST COPY AVAILABLE

BOARD OF COOPERATIVE EDUCATIONAL SERVICES
OF NASSAU COUNTY

SALISBURY CENTER
Valentines Road and The Plain Road
Westbury, New York 11590
516-997-8700

Richard L. Ornauer, President
George Farber, Vice-President
Simeon A. Wittenberg, District Clerk
Charles R. Russell Jr., Vice-District Clerk
Joseph M. Barry
Dr. Arnold D. Lurie
Henrietta B. Tuthill
Seymour W. Weiner
Iris Wolfson

Dr. William T. Callahan, District Superintendent

Joseph A. Forte, Deputy District Superintendent

DIVISION OF GENERAL SERVICES

Dominick J. Mupo, Assistant Superintendent

Norman Skliar, Associate Administrator
Outdoor and Environmental Education

The Final Evaluative Report of
THE HOMESTEAD ECOLOGY EXPERIENCE FOR
SPECIAL EDUCATION STUDENTS AND TEACHERS

TABLE OF CONTENTS

I. INTRODUCTION..... 1

II. ABSTRACT..... 1

III. PILOT PROGRAM: SPRING 1979..... 3

IV. STUDENT COMPONENT..... 4

TABLE I. Mastery Skills List
Emotionally Disturbed Students..... 7

TABLE II. Mastery Skills List
Physically Handicapped Students..... 9

TABLE III. Mastery Skills List
Mentally Retarded Students..... 11

TABLE IV. Mastery Skills List
Learning Disabled Students..... 14

TABLE V. Mastery Skills List
Emotionally Disturbed Students..... 17

TABLE VI. Mastery Skills List
Emotionally Mentally Retarded Students..... 19

TABLE VII. Mastery Skills List for
SCILL Students..... 22

TABLE VIII. Mastery Skills List for
Deaf Students..... 24

TABLE IX. Mastery Skills List for Emotionally
Disturbed/Learning Disabled Students..... 27

TABLE X. Mastery Skills List for Emotionally
Disturbed/Learning Disabled Students..... 29

TABLE XI. Mastery Skills List for Special Education Class..... 31

TABLE XII. Mastery Skills List for Learning Disabled Students..... 33

TABLE XIII. Mastery Skills List for Special Education Class..... 35

V. CURRICULUM COMPONENT..... 37

VI. TEACHER COMPONENT..... 37

TABLE XIV. Results of Teacher's Questionnaire..... 41

VII. CONCLUSIONS AND RECOMMENDATIONS..... 42

APPENDIX A.
Pilot Program Spring 1979 Description and Comments..... 43

APPENDIX B.
Mastery Skills List..... 59

APPENDIX C.
Student Essay..... 65

APPENDIX D.
Curricula Developed to Accompany Brookville Experience.... 67

1. Log Cabin and Broommaking..... 68
2. Project Adventure Program..... 77
3. Homestead Ecology..... 87

APPENDIX E.
Evaluation Questionnaire for Participating Teachers..... 92

APPENDIX F.
Grant Abstract..... 97

APPENDIX G.
Pre- and Post-Trip Activities..... 134

I. Introduction

The evaluation of the Homestead Ecology Experience has been of a formative nature. The evaluator assigned to this project has been with it since the Pilot Program in the Spring 1979. This continued involvement allowed changes in objectives and instruments to be made from the feedback received from naturalists and teachers. It is expected that the documentation presented in this report will help interested organization in providing similar programs.

This final report is divided into six sections, as follows:

I. Introduction
II. Abstract
III. Pilot Program
IV. Student Component
V. Curriculum Component
VI. Teacher Component.

The information presented in this report is from the period July 1, 1979 to June 30, 1980. The data were provided by project staff, teachers, and students.

II. Abstract

This project has provided for three staff people, working out of the Nassau County BOCES Office of Outdoor and Environmental Education, who have coordinated a comprehensive outdoor education program for the 2,500 special education students and their teachers in Nassau County. As a replicable program it will serve as a model for other facilities and agencies seeking to provide for

substantive educational change involving the extension of the learning environment for special education students.

Utilizing the existing BOCES resources and the Brookville Outdoor and Environmental Education Homestead Center, this project has made it possible for special education students to participate in unique outdoor experiences not available through the regular school program. Three major components of this project were as follows:

1. active student participation in activity-oriented interdisciplinary Homestead Ecology Program;

2. the development and use of multi-media special education/homestead ecology curriculum materials; and

3. in-service training of special education teachers in outdoor education/homestead ecology.

This three-pronged approach has made it possible for outdoor education to become a valued teaching technique in the special education setting.

BOCES Special Education schools, and the following Nassau County school districts participated in this project:

Elmont	Great Neck	Mill Neck
Garden City	Levittown	Uniondale
Glen Cove	Manhasset	Westbury

The following handicapped groups were served:

Emotionally Disturbed	Trainable Mentally Retarded
Learning Disabled	Physically Handicapped
Deaf/Multi-Handicapped	Neurologically Handicapped

III. Pilot Program: Spring, 1979

Description and comments from participants in the pilot program are presented in Appendix A. Brief summaries of the workshop offered and the student comments follow.

A. Teacher and Administrative Workshops

Administrators and twenty teachers participated in "The Homestead Ecology Experience for Special Education Students and Teachers," the Brookville Grant for the Handicapped.

Numerous meetings and workshop sessions were conducted to familiarize the participating districts and teachers with the total philosophy of this Grant. These workshops proved most successful in developing outstanding rapport between teachers and the BOCES staff, and in providing sufficient opportunity for the participating teachers to better understand their individual roles and responsibilities in this important project.

Developing from these workshops were the pilot student program, the pre- and post-instructional materials, and a student evaluation instrument for use in the final project.

B. Pilot Student Program

In the Spring pilot program, consisting of 150 students, 12 classes visited the Brookville site on three different occasions.

The pilot program was described by participating teachers and BOCES staff as an "excellent experience." The accomplishments were noted and all problems or challenges were taken into consideration for the "main" project which began in September, 1979.

IV. Student Component

A. Objectives

Hands-on learning experiences are necessary to permit students, especially the handicapped, to make the associations needed to learn about the natural world. At the Brookville Homestead site, students can use all of their senses to experience the variety of nature and the homesteader's direct dependence on this natural environment.

Through

a. pre-trip preparation in the classroom;

b. active participation in early American crafts (blacksmithing, broommaking, pioneer construction, and outdoor cooking), problem-solving activities, farm and animal care, and multi-sensory exploration of the natural environment; and

c. post-trip activities in the classroom;

the special education students participating in the Homestead Ecology program will, by the end of the program:

1. improve their cognitive skills, such as
   a) sequencing,
   b) time concepts,
   c) following directions,
   d) classification,
   e) wtitten and verbal expression,
   f) association, and
   g) measurement.

2. develop large and fine motor skills, through participation in pioneer crafts, Project Adventure activities, and the nature trail learning stations which require manipulations of concrete materials and whole body movement.

B. Activities

To accomplish the program's objectives, a full six-day schedule was developed for each participating class. Within the framework of this main program, provisions were made for specific handicaps and individual needs and interests. The six-day main program was as follows:

Day 1: ORIENTATION/BROOMMAKING

Using simple tools, work raw materials into a functional piece. Trace the process from the field to the finished broom.

Day 2: BLACKSMITHING

Develop additional craft skills as a blacksmith's apprentice. Build self-confidence.

Day 3: PROJECT ADVENTURE

Face "insurmountable" challenges! Activate the physical and mental abilities of the group. Develop the dynamic spirit of the pioneers.

Day 4: LOG CABIN CONSTRUCTION/ WOODWORKING

Become a contributing part of the "homestead." Create furnishings for the log cabin using saws, draw knives, axes, awls, etc.

Day 5: SEASONAL DAY

Observe seasonal changes and their effect on man and nature. Participate in seasonal holiday traditions, and creative crafts.

Day 6: OUTDOOR COOKING

Trace the origin of common food products. Plan and prepare Johnny cakes, hasty pudding, or some other colonial recipe, over an open fire.

C. Accomplishments

The difficulty in evaluating special education students has been recognized. An extra factor which was considered was the six-day schedule. An instrument which took in account both the varied population being served and the type of activities offered was developed with input from project staff and teachers. The Mastery Skills List, presented in Appendix B, is a series of skill topics related to experiences handicapped children engaged in, while at the Brookville Center.

Students were also asked to write an essay in which they describe what they did while at Brookville, as well as how they felt about the experience. A sample of the type of information wanted in the essay is presented in Appendix C.

The results from the Mastery Skills List are presented first. These data have been analyzed by school. The number of students mastering each skill is presented for the skills chosen for each group. Note that the specific skills chosen vary from group to group. The specific name of each skill was not included in the tables. The reader is suggested to look in Appendix B for what each number means as a skill. The percentages which appear in the tables are computed from the total students attempting each skill in each of the six days. The absent students are not included in any of the evaluations.

For the following tables, the skills listed were chosen as follows: Two skill areas from the Cognitive Domain; One skill area from the Psychomotor Domain.

The Mastery Skills List has also skills for the Affective Domain. Some teachers used the three domains to gather more information on their students.

TABLE I

RESULTS FROM MASTERY SKILLS LIST FOR BALDWIN HARBOR PARK SCHOOL I PHYSICALLY HANDICAPPED AND EMOTIONALLY DISTURBED STUDENTS (N=8)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1	7 (100%)	0	1	7 (100%)	0	1	4 (67%)	2(33%)	2	5 (100%)	0	3	8 (100%)	0	0	-	-	-
	2	7 (100%)	0	1	7 (100%)	0	1	1 (17%)	5(83%)	2	5 (100%)	0	3	8 (100%)	0	0	-	-	-
	3a	5 (100%)	0	3	7 (100%)	0	1	5 (100%)	0	3	4 (100%)	0	4	8 (100%)	0	0	-	-	-
	3b	6 (100%)	0	2	7 (100%)	0	1	5 (100%)	0	3	4 (100%)	0	4	8 (100%)	0	0	-	-	-
	3c	6 (100%)	0	2	7 (100%)	0	1	5 (100%)	0	3	4 (100%)	0	4	8 (100%)	0	0	-	-	-
	4	6 (100%)	0	2	7 (100%)	0	1	5 (100%)	0	3	4 (100%)	0	4	8 (100%)	0	0	-	-	-
Following Directions																			
	1a	7 (100%)	0	1	8 (100%)	0	0	5 (83%)	1(17%)	2	5 (100%)	0	3	8 (100%)	0	0	-	-	-
	1b	7 (100%)	0	1	8 (100%)	0	0	4 (67%)	2(33%)	2	5 (100%)	0	3	7 (100%)	1	0	-	-	-
	2a	7 (100%)	0	1	8 (100%)	0	0	5 (83%)	1(17%)	2	5 (100%)	0	3	8 (100%)	0	0	-	-	-
	2b	7 (100%)	0	1	7 (88%)	1(13%)	0	2 (33%)	4(67%)	2	4 (80%)	1(70%)	3	8 (100%)	0	0	-	-	-
	2c	4 (57%)	3(43%)	1	5 (63%)	3(38%)	0	0	6(100%)	2	4 (80%)	1(20%)	3	6 (75%)	2(25%	0	-	-	-
Fine Motor Skills																			
	1a	7 (100%)	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1b	6 (86%)	1(14%	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1c	6 (86%)	1(14%	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	4 (100%)	0	4	--	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	6 (100%)	0	2	-	-	-	3 (100%)	0	5	-	-	-	7 (100%)	0	1	-	-	-
	5	6 (86%)	1(14%	1	7 (100%)	0	1	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7	7 (100%)	-	-	8 (100%)	0	0	6 (100%)	0	2	-	-	-	-	-	-	-	-	-

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent

As can be seen from the preceding table, students from Baldwin Harbor Park School I were assessed in three skill areas: Sequencing, Following Directions, and Fine Motor Skills. In Sequencing, all students who attempted the six skills were able to master them.

In Following Directions, students demonstrated little or no problem with the first three skills (1a, 1b, and 2a). On the third day, 67% of the students who attempted skill 2b (Student follows directions when given two at a time) were not able to master it. This could have been due to emotional reasons, for most of these students were able to master this skill before and after the third day. Most students had problems with skill 2c (Students follow more than three directions), especially on the third day, when not one student mastered it. The percentage of mastery for this skill on the other days ranged from 57% on the first day to 80% on the fourth day.

If one looks at the third day alone, throughout the skills one can see it was the day when students had more problems. In Fine Motor Skills, most students were able to master the skills which they attempted at different times.

TABLE II

RESULTS FROM MASTERY SKILLS LIST FOR BALDWIN HARBOR PARK SCHOOL II
(BOCES SCHOOL DISTRICT)--PHYSICALLY HANDICAPPED STUDENTS

(N=9)

SKILLS	I Day			II Day			III Day			IV Day			V Day			VI Day*		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Measurement 1	8 (100%)		1	8 (100%)		1	8 (100%)		1	8 (100%)		1	9 (100%)					
2	8 (100%)		1	8 (100%)		1	8 (100%)		1	8 (100%)		1	9 (100%)					
3a	8 (100%)		1	8 (100%)		1	8 (100%)		1	8 (100%)		1	9 (100%)					
3b	8 (100%)		1	8 (100%)		1	8 (100%)		1	8 (100%)		1	9 (100%)					
3c	8 (100%)		1	8 (100%)		1	8 (100%)		1	8 (100%)		1	9 (100%)					
4	NOT APPLICABLE FOR THIS GROUP																	
Following Directions	M = Complete Mastery									G = Growth Towards Mastery								
1a	M4(50%) G1(13%)	3(38%)	1	M4(50%) G1(13%	3(38%)	1	5(63%)	3(38%)	1	M4(50%) G1(13%)	3(38%)	1	M5(56%) G1(11%)	3(33%)				
1b	M4(50%) G1(13%)	3(38%)	1	M4(50%) G1(13%)	3(38%)	1	4(50%)	4(50%)	1	M3(38%) G1(13%)	4(50%)	1	M4(44%) G1(11%)	4(44%)				
2a	8(100%)		1	8(100%)		1	8(100%)		1	8(100%)		1	9(100%)					
2b	8(100%)		1	8(100%)		1	8(100%)		1	8(100%)		1	9(100%)					
2c	M6(25%) G1(13%)	1(13%)	1	M6(86%) G1(14%)		1	6(75%)	2(25%)	1	M5(63%) G1(13%)	2(25%)	1	M6(67%) G1(11%)	2(22%)				
Fine Motor Skills 1a				7(100%)		1												
1b				7(100%)		1												
1c	NOT APPLICABLE FOR THIS GROUP																	
2										7(100%)		1						
3	NOT APPLICABLE FOR THIS GROUP																	
4										7(100%)		1	8(100%)					
5													8(100%)					
6	NOT APPLICABLE FOR THIS GROUP																	
7				7(100%)		1				6(86%)	1(14%)	1	8(100%)					

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal

*No information was provided for sixth day

According to the preceding table, students from Baldwin Harbor Park School II were assessed in the following skills areas: Measurement, Following Directions, and Fine Motor Skills. No information was available for the sixth day, so students were assessed only on the first five days.

In the Measurement area, all students who attempted the fine skills assessed for this groups were able to master them.

In the Following Directions area, students had no problems in mastering two skills: 2a and 2b. For skill 1a: three students were never able to master this skill, while from five to six students either demonstrated growth towards mastery or mastered this skill. For skill 2c: only two students did not master this skill on the third, fourth, and fifth visits. The rest either demonstrated growth towards mastery or mastered it.

In the Fine Motor Skills area, all students who attempted the applicable skills on each of the five days, for which data were available, were able to master these skills.

TABLE III

RESULTS FROM MASTERY SKILLS LIST FOR ALDEN TERRACE SCHOOL (ELMONT)--MENTALLY RETARDED STUDENTS (overnite) (N=9)

SKILLS	I Day			II Day			III Day			IV Day*			V Day**			VI Day**		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Time Concepts																		
1a		9(100%)			9(100%)		2(22%)	7(78%)		2(22%)	7(78%)							
1b		9(100%)		5(56%)	4(44%)		6(67%)	3(33%)		7(78%)	2(22%)							
2a		9(100%)			9(100%)			9(100%)		2(22%)	7(78%)							
2b	2(22%)	7(78%		6(67%)	3(33%		8(89%)	1(11%)		8(89%)	1(11%							
3	1(11%)	8(89%		6(67%)	3(33%		9(100%)			9(100%)								
Sequencing																		
1	4(44%)	5(56%		7(78%)	2(22%		8(89%)	1(11%)		8(89%)	1(11%							
2	5(56%)	4(44%		8(89%)	1(11%		8(89%)	1(11%)		8(89%)	1(11%							
3a										8(89%)	1(11%							
3b										2(22%)	7(78%							
3c										4(44%)	5(56%							
4	NOT APPLICABLE FOR THIS GROUP																	
Fine Motor Skills																		
1a				9(100%)														
1b				9(100%)														
1c				8(89%)	1(11%													
2										8(100%)		1						
3										8(100%)		1						
4				7(78%)	2(22%													
5				7(78%)	2(22%													
6										7(100%)		2						
7										7(100%)		2						

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent

According to the preceding table, students in the Alden Terrace School were assessed in the following skills areas: Time Concepts, Sequencing, and Fine Motor Skills. There was no information available for this group for the fifth and sixth days. Also, their fourth day was an overnite experience, when students stayed in Brookville for the night.

In the Time Concepts areas, students showed growth in skill 1a. The first and second days not one of the students who attempted this skill mastered it. By the third and fourth days, 22% of the students were mastering this skill. For skill 1b: none of the students was able to master this skill on the first day. The percentage of students mastering this skill increased from 56% on the second day to 78% on the fourth day. For skill 2a: not one student who attempted this skill mastered it on the first through third day. There was growth on the fourth day, when 22% of the students mastered this skill. For skill 2b: the percentage of students mastering this skill rose from 22% on the first day, 67% on the second day, to 89% on the third and fourth days. The percentage of students mastering skill 3 increased from 11% on the first day to complete class mastery (100%) on the third and fourth days.

In the area of Sequencing, complete data were available for skills 1 and 2. For skill 1, the percentage of students who mastered this skill increased from 44% on the first day, 78% on the second

day, to 89% on the third and fourth days. Over half of the students who attempted skill 2 (56%), were able to master it on the first day. This percentage increased to 89% for the second day, and remained constant for the next two visits. For skills 3a, 3b, and 3c, information is available only for the fourth day. On that day, the percentages of students who mastered these skills were 89%, 22%, and 44% for skills 3a, 3b, and 3c, respectively.

In the Fine Motor Skills area, most students who attempted these skills on different opportunities were able to master them.

TABLE IV

RESULTS FROM MASTERY SKILLS LIST FOR MEMORIAL JUNIOR HIGH SCHOOL (LEVITTOWN S.D.)--LEARNING DISABLED STUDENTS

(N=12)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1	M4(33%)			M6(50%)			M6(55%)			M8(73%)			Not Applicable			M8(67%)		
		G4(33%)	4(33%)		G3(75%)	3(75%)		G4(36%)	1(9%)		G3(27%)		1				G4(33%)		
	2	M5(42%)			M7(58%)			M7(64%)			------ Not Applicable ------								
		G 3(25%)	4(33%)		G4(33%)	1(8%)		G4(36%)		1									
	3a	M6(50%)			M6(50%)			M8(73%)			M9(82%)			M9(75%)			M11(92%		
		G4(33%)	2(17%)		G5(42%)	1(8%)		G2(18%)	1(9%)	1	G2(18%)		1	G3(25%)			G1 (8%)		
	3b	M6(50%)			M6(50%)			M7(64%)			M9(82%)			M9(75%)			M9 (75%		
		G5(42%)	1(8%)		G5(42%)	1(8%)		G3(27%)	1(9%)	1	G2(18%)		1	G2(17%)	1(8%)		G3 (25%		
	3c	M2(17%)			M5(42%)			M7 (64%)			M9(82%)			M8(67%)			M9 (75%		
		G9(75%)	1(8%)		G6(50%)	1(8%)		G3(27%)	1(9%)	1	G2(18%)		1	G3(25%)	1(8%)		G2 (17%	1 (8%	
	4	M6(50%)			M6(50%)			M6(55%)			M8(73%)			M8(67%)			M9 (75%)		
		G5(42%)	1(8%)		G5(42%)	1(8%)		G4(36%)	1(9%)	1	G3(73%)		1	G3(25%)	1(8%)		G2 (17%)	1 (8%	
Following Directions																			
	1a	M4(33%)			M8(66%)			M10(91%)			M6(55%)			M7(58%)			M8(66%)		
		G5(42%)	3(25%)		G3(25%)	1(8%)		G1(9%)		1	G2(18%)	3(27%		G4(33%)	1(8%)		G2(17%)	2(17%)	
	1b	M8(66%)			M8(66%)						M6(55%)			M8(66%)			M10(83%		
		G2(17%)	2(17%)		G2(17%)	2(17%)		11(100%)		1	G2(18%)	3(27%		G2(17%)	2(17%)		G2(8%)	1(8%)	
	2a	M10(83%)												M10(83%			M11(85%		
		G2(17%)			12(100%)			11(100%)			11(100%		1	G2(17%)			G1(8%)	1(8%)	
	2b	M5(42%)												M9(75%)			M11(85%		
		G6(50%)	1(8%)		12(100%)			11(100%)		1	11(100%		1	G3(25%)			G1(8%)	1(8%)	
	2c	M4(33%)			M8(67%)			M9(82%)						M9(75%)			M10(83%		
		G5(42%)	3 (25%)		G4(33%)			G2(18%)		1	11(100%		1	G3(25%)			G2(17%)		

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal

TABLE IV--continued

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Fine Motor Skills	1a							11(100%)		1				12(100%)			M10(83%) G 2(17%)		
	1b							11(100%)		1				M9(75%) G3(25%)			M 9(75%) G 2(17%)		1(8%)
	1c	NOT APPLICABLE FOR THIS GROUP																	
	2				M 6(50%) G 3(25%)	3(25%)								M6(50%) G5(42%)	1(8%)		M 7(58%) G 4(33%)		1(8%
	3	NOT APPLICABLE FOR THIS GROUP																	
	4	M8(67%) G4(33%)																	
	5	M7(58%) G4(33%)	1(8%)																
	6	NOT APPLICABLE FOR THIS GROUP																	
	7				M 4(33% G 5(42%	3(25%)		11(100%)		1				M9(75%) C3(25%)			M11(92%) G 1(8%)		

25

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal

According to the preceding table, students from Memorial Junior High School students were assessed in the following areas: Sequencing, Following Direction, and Fine Motor Skills. In the Sequencing area, a few students had some problems with skills 1, 2, and 3a during the first two visits. By the third visit, most students (92%), who attempted the skills in this area, were mastering them.

In the Following Directions area, students in this group had some problems with skills 1 a and 1b (approximation of how long a task takes to be completed). For skill 1 a, 25% of the students did not master this skill on the first day, this percentage decreased to 8% on the second visit, 0% on the third visit, and increased to 27% on the fourth day. Basically, the same pattern was manifested for skill 1b. For skills 2a, 2b, and 2c, most students mastered these skills on all the visits.

In the Fine Motor Skills area, most students who attempted the skills in this area, were able to master them. Note that three skills: 1c, 3, and 6, were not applicable for this group.

TABLE V

RESULTS FROM MASTERY SKILLS LIST FOR MIDDLE SCHOOL I (GLEN COVE)
EMOTIONALLY DISTURBED STUDENTS (N=7)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1	5(71%)	2(29%)		5(71%)	2(29%)		6(86%)	1(14%)		7(100%)			7(100%)			7(100%)		
	2	5(71%)	2(29%)		5(71%)	2(29%)		5(71%)	2(29%)		7(100%)			6(86%)	1(14%)		6(86%)	1(14%)	
	3a	6(100%)			6(100%)			6(100%)			6(100%)			6(100%)			6(100%)		
	3b	4(67%)	2(33%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)	
	3c	3(50%)	3(50%)		4(67%)	2(33%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)	
	4	4(67%)	2(33%)		4(67%)	2(33%)		4(67%)	2(33%)		4(67%)	2(33%)		4(67%)	2(33%)		5(83%)	1(17%)	
Following Directions	1a	3(50%)	3(50%)		6(86%)	1(14%)		4(67%)	2(33%)		6(100%)			6(100%)			5(83%)	1(17%)	
	1b	4(67%)	2(33%)		3(50%)	3(50%)		5(83%)	1(17%)		4(67%)	2(33%)		4(67%)	2(33%)		4(67%)	2(33%)	
	2a	5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(100%)		1	5(100%)		1	5(100%)		1
	2b	4(67%)	2(33%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)		5(83%)	1(17%)	
	2c	1(17%)	5(83%)			6(100%)		2(33%)	4(67%)		3(50%)	3(50%)		3(50%)	3(50%)		4(67%)	2(33%)	
Fine Motor Skills	1a	2(33%)	4(67%)		4(67%)	2(33%)													
	1b	2(33%)	4(67%)		4(67%)	2(33%)													
	1c	2(33%)	4(67%)		4(67%)	2(33%)													
	2	2(33%)	4(67%)											5(83%)	1(17%)				
	3	2(33%)	4(67%)											5(83%)	1(17%)				
	4	2(33%)	4(67%)											4(67%)	2(33%)				
	5	5(83%)	1(17%)																
	6	5(83%)	1(17%)																
	7	5(83%)	1(17%)																

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal

Students in the Glen Cove Middle School I were assessed in the following areas: Sequencing, Following Directions, and Fine Motor Skills. In the Sequencing area, all students showed growth in the six skills in this area. One skill, 3a, was mastered by all students from the first day. All the other skills increased from the first to sixth day. On the sixth day, the percentage of mastery ranged from 83% for skills 3b, 3c, and 4, to perfect class mastery (100%) for skill 1.

In the Following Directions area, students demonstrated growth in all skills but one, 1b. In this skill the same percentage of students mastering it on the first day (67%) mastered it on the sixth day. For the other skills, the increases ranged from skill 2c; 17% mastery on first day to 67% mastery on sixth day, to skill 2a; 83% mastery on first day to perfect class mastery (100%) on sixth day.

In the Fine Motor Skills area, some growth was experienced in skills 1a, 1b, and 1c, from 33% mastery on the first day to 67% mastery on the sixth day. For skills 2 and 3, the growth was from 33% mastery on the first day to 83% mastery on the sixth day. The increase in skill 4 was smaller; from 33% mastery on first day to 67% mastery on the sixth day.

TABLE VI

RESULTS FROM MASTERY SKILLS LIST FOR MIDDLE SCHOOL II (GLEN COVE C.S.D.)
EMOTIONALLY MENTALLY RETARDED (EMR) STUDENTS

(N=11)

SKILLS	I Day			II Day			III Day			IV Day			V Day			VI Day		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Measurement																		
1	M6(60%)			M7(70%)			M7(78%)			M7(78%)			M8(80%)			M8(73%)		
	G3(30%)	1(10%)	1	G2(20%)	1(10%)	1	G2(22%)		1	G2(22%)		2	G2(20%)		1	G3(27%)		
2	M1(10%)			M1(10%)			M2(20%)			M2(22%)			M2(20%)			M4(36%)		
	G5(50%)	4(40%)	1	G5(50%)	4(40%)	1	G5(50%)	3(30%)	1	G6(67%)	1(11%)	2	G7(70%)	1(10%)	1	G6(55%)	1(9%)	
3a	M5(50%)			M6(60%)			M5(50%)			M4(44%)			M6(60%)			M6(55%)		
	G3(30%)	2(20%)	1	G2(20%)	2(20%)	1	G4(40%)	1(10%)	1	G5(56%)		2	G4(40%)		1	G5(45%)		
3b	M6(60%)			M6(60%)			M5(50%)			M4(44%)			M6(60%)			M6(55%)		
	G3(30%)	1(10%)	1	G3(30%)	1(10%)	1	G5(50%)		1	G5(56%)		2	G4(40%)		1	G5(45%)		
3c	M7(70%)			M7(70%)			M7(70%)			M6(67%)			M8(80%)			M8(73%)		
	G3(30%)		1	G3(30%)		1	G3(30%)		1	G3(33%)		2	G2(70%)		1	G3(27%)		
4		10(100%)	1		10(100%)	1		10(100%)	1		9(90%)	2	NOT APPLICABLE					
Time Concepts																		
1a	M0			M0			M0			M0			M0			M0		
	G3(30%)	7(70%)	1	G3(30%)	7(70%)	1	G4(40%)	6(60%)	1	G3(33%)	6(67%)	2	G4(40%)	6(60%)	1	G4(36%)	7(64%)	
1b	M3(30%)			M3(30%)			M4(40%)			M3(33%)			M5(50%)			M5(45%)		
	G5(50%)	2(20%)	1	G6(60%)	1(10%)	1	G6(60%)		1	G6(67%)		2	G5(50%)		1	G6(55%)		
2a	M4(40%)			M4(40%)			M3(30%)			M3(33%)			M6(60%)			M7(64%)		
	G5(50%)	1(10%)	1	G5(50%)	1(10%)	1	G7(70%)		1	G6(67%)		2	G4(40%)		1	G4(36%)		
2b	M4(40%)			M5(50%)			M7(70%)			M7(78%)			M8(80%)			M9(82%)		
	G6(60%)		1	G5(50%)		1	G3(30%)		1	G2(22%)		2	G2(20%)		1	G2(18%)		
3	M1(10%)			M1(10%)			M3(30%)			M4(44%)			M5(50%)			M6(55%)		
	G7(70%)	2(20%)	1	G7(70%)	2(20%)	1	G6(60%)	1(10%)	1	G4(44%)	1(11%)	2	G3(30%)	2(20%)	1	G3(27%)	2(18%)	

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal

TABLE VI--continued

SKILLS	I Day			II Day			III Day*			IV Day			V Day			VI Day		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Fine Motor Skills 1a	Not Applicable			M7(70%)						M2(40%)			M3(75%)					
				G3(30%)		1				G3(60%)		2	G1(25%)		1	I1(100%)		
1b				M5(50%)						M1(70%)			M3(75%)			M9(82%)		
				G5(50%)		1				G4(80%)		2	G1(25%)		1	G2(18%)		
1c				M3(30%)						M0			M1(25%)			M6(60%)		
				G7(70%)		1				G5(100%		2	G3(75%)		1	G4(40%)		
2				M2(50%)									M1(17%)					
				G2(50%)		1							G5(83%)		1			
3	NOT APPLICABLE FOR THIS GROUP																	
4				M7(70%)						M5(83%)								
				G3(30%)		1				G1(17%)		2						
5				M8(80%)												M8(89%)		
				G2(20%)		1						2				G1(11%)		
6													M4(80%)			M3(75%)		
				9(100%)		1				4(100%)		2	G1(20%)		1	G1(25%)		
7																M8(89%)		
				9(100%)		1				3(100%)		2	6(100%)		1	G1(11%)		

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Toward Goal
*No information available for this day

According to the preceding table, students in Glen Cove Middle School II were assessed in the following areas: Measurement, Time Concepts, and Fine Motor Skills. In the area of Measurement, all students demonstrated growth and/or mastery in all skills but two. One skill, two (approximation of material needed) gave some students difficulty up to the third visit. By the last visit, only one student was not able to master it. Skill 4 (students can orient themselves) was not mastered by any student during the six visits.

In the Time Concepts area, students showed some difficulty in skill 1a (specific time approximation to complete a task). On the first day, 30% of the students showed some growth towards mastery. By the sixth day, a small increase (36%) on the students who showed growth appeared. Most of the students either mastered and/or showed growth towards mastery on the rest of the skills in this area.

In the Fine Motor Skills area, all students who attempted the difficult skills in this area either mastered them or showed some growth towards mastery.

TABLE VII

RESULTS FROM MASTERY SKILLS LIST FOR MILL NECK MANOR SCHOOL I FOR S C I L L STUDENTS

(N=14)

SKILLS		I Day			II Day			III Day			IV Day			V Day*			VI Day*		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1	8(67%)	4(33%)	1	9(75%)	3(25%)	1	8(73%)	3(27%)	2	9(64%)	5(36%)							
	2	7(58%)	5(42%)	1	8(67%)	4(33%)	1	8(73%)	3(27%)	2	8(57%)	6(43%							
	3a	9(75%)	3(25%)	1	9(75%)	3(25%)	1	8(73%)	3(27%)	2	11(79%)	3(21%							
	3b	7(58%)	5(42%)	1	7(58%)	5(42%)	1	7(64%)	4(36%)	2	7(54%)	6(46%							
	3c	7(58%)	5(42%)	1	7(58%)	5(42%)	1	7(64%)	4(36%)	2	7(54%)	6(46%							
	4	8(67%)	4(33%)	1	8(67%)	4(33%)	1	8(73%)	3(27%)	2	8(62%)	5(38%							
Measure-ment	1	10(83%)	2(17%)	1	11(85%)	2(15%)	1	9(82%)	2(18%)	2	9(69%)	4(31%							
	2	8(67%)	4(33%)	1	8(67%)	4(33%)	1	8(73%)	3(27%)	2	8(62%)	5(38%							
	3	9(75%)	3(25%)	1	9(75%)	3(25%)	1	9(82%)	2(18%)	2	9(69%)	4(31%							
	4	1(8%)	11(92%)	1	1(8%)	11(92%)	1	1(9%)	10(91%)	2	1(8%)	12(92%							
	5		12(100%)	1		12(100%)	1		11(100%)	2		13(100%)							
Fine Motor Skills	1a	11(92%)	1(8%)	2															
	1b	10(83%)	2(17%)	2															
	1c	9(75%)	3(25%)	2															
	2	10(83%)	2(17%)	2															
	3	9(75%)	3(25%)	2															

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent

*No information is available for this visit.

According to the preceding table, students from Mill Neck Manor School I were assessed in the following areas: Sequencing, Measurement, and Fine Motor Skills. There was no information available for any of the areas on the fifth and sixth days. The only information available in the Fine Motor Skills area was on the first day for the first five skills.

In the Sequencing area, some growth was experienced for skills 1, 2, and 3a from the first to fourth visit. For each of these skills at least one student more was mastering the skills on the fourth visit that the number of students mastering each skill on the first visit. For skills 3b, 3c, and 4, the same number of students mastering each skill on the first visit was mastering them by the fourth visit.

In the Measurement area, most students (70%) were mastering each of the first three skills: 1, 2, and 3, during the four visits; while most students were not mastering skills 4 and 5, even by their fourth visit.

In the Fine Motor Skills area, the information available for the first day shows at least 75% of the students mastering the first five skills for which information was available: 1a, 1b, 1c, 2, and 3.

TABLE VIII

RESULTS FROM MASTERY SKILLS LIST FOR MILL NECK MANOR SCHOOL II FOR DEAF STUDENTS

(N=19)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Following Directions																			
	1a	M11(61%)			M14(78%)			M15(79%)			M16(89%)								
		G4(22%)	3(17%)		G3 (17%)	1 (6%		G2 (11%	2(11%)		G1 (6%)	1 (6%		15(83%)	3(17%)		17(94%)	1 (6%	1
	1b	M10(55%)			M14(78%)			M15(79%)			M17(94%)								
		G5(28%)	3(17%)		G4(22%)			G3 (16%	1 (5%)		G1 (6%)			16(89%)	2(11%)		18(100%		1
	2a	M17(94%)			M17(94%)			M18(95%											
		G1 (6%)			G1 (6%)			G1 (5%)			18(100%)			18(100%)			18(100%		1
	2b	M15(83%			M16(89%)			M18(95%											
		G2(11%)	1 (6%)		G1 (6%)	1 (6%		G1 (5%)			18(100%)			18(100%)			18(100%		1
	2c	M11(61%			M10(55%)			M13(68%			M11(61%)			M11(61%			M12(67%)		
		G3(17%)	4(22%)		G6(33%)	2(11%)		G5(26%)	1 (5%)		G4(22%)	3(17%)		G4(22%)	3(17%)		G3(17%)	3(17%	1
Association	1	13(100%)			7(100%)		1	15(100%)			16(100%)			16(100%)			17(100%)		1
								M9(56%)			M11(69%			M11(69%			M12(75%		
	2a	13 (93%)	1 (7%)		6 (86%)	1(14%	1	G5(31%)	2(13%		G4(25%)	1 (6%)		G4(25%)	1 (6%)		G4 (25%		1
								M12(80%			M11(69%			M11(69%			M12(71%		
	2b	7 (78%)	2(22%)		6 (86%)	1(14%	1	G3(20%)			G3(19%)	2(12%)		G3(19%)	2(12%)		G3(18%)	2(12%	1
		M7(88%)									M15(94%			M15(94%			M16(94%		
	2c	G1(13%)			6 (86%)	1(14%	1	14 (93%)	1 (7%		G1 (6%			G1 (6%			G1 (6%		1
		M7(88%)									M15(94%			M15(94%			M15(94%		
	2d	G1(13%)			6 (86%)	1(14%	1	14 (93%)	1 (7%		G1 (6%			G1 (6%			G1 (6%		1
											M13(81%			M14(88%			M14(82%		
	3	7 (88%)	1(13%)		6(100%)		1	14(100%)			G3 (19%			G2(12%)			G3 (18%		1
								M14(93%			M15(94%								
	4	9(100%)			6(100%)		1	G1 (7%			G1 (6%			16(100%)			16(100%)		1

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Towards Mastery

TABLE VIII--continued

SKILLS	I Day			II Day			III Day			IV Day			V Day			VI Day		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Fine Motor Skills																		
1a				M9(82%)			M4(44%)			M7(64%)			M4(36%)			M5(71%)		
				G2(18%)			G5(56%)			G4(36%)			G7(64%)			G2(29%)		1
1b				M9(82%)			M4(44%)			M7(64%)			M4(36%)					
				G2(18%)			G5(56%)			G4(36%)			G7(64%)					1
1c				M8(72%)			M2(33%)			M3(30%)			M3(38%)			M3(50%)		
				G2(18%)	1(9%)		G4(67%)			G6(60%)	1(10%)		G5(62%)			G3(50%)		1
2										M3(33%)						M8(67%)		
										G6(67%)						G4(33%)		1
3										M4(36%)						M6(60%)		
										G7(64%)						G4(40%)		1
4	M11(79%)									M4(40%)			M7(58%)			M6(60%)		
	G1 (7%)	2(14%)								G6(60%)			G5(42%)			G4(40%)		1
5													M4(40%)					
	13 (93%)	1 (7%)											G6(60%)					1
6	13(100%)																	1
7										M5(50%)			M9(60%)			M10(62%)		
	9(100%)									G5(50%)			G6(40%)			G6(28%)		1

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Towards Mastery

According to the preceding table, students in the Mill Neck Manor School II were assessed in the following areas: Following Directions, Association, and Fine Motor Skills. In the Following Directions area, at least 94% of the students were mastering skills 1a, 1b, 2a, and 2b by the sixth visit. Skill 1a showed an erratic pattern of mastery/non-mastery. Skill 2c showed a small improvement in mastery or growth towards mastery, from 78% on the first day to 84% in the last visit. Still there were some students (17%) who did not master this skill even by the sixth day.

In the area of Association, most students, at least 89%, were showing either mastery or growth toward mastery in all skills by the sixth visit. Only in skill 2b, was there a small percentage of students (12%) who had not mastered this skill.

In the Fine Motor Skills area, all students (100%) were, by the sixth visit, either mastering or showing growth towards mastery in all the skills in this area.

TABLE IX

RESULTS FROM MASTERY SKILLS LIST FOR PLAINVIEW PRIMARY SCHOOL
FOR EMOTIONALLY DISTURBED/LEARNING DISABLED STUDENTS

(N=7)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Measurement	1	6(86%)	1(14%		6(86%)	1(14%		6(86%)	1(14%		6(86%)	1(14%		7(100%)			7(100%)		
	2	6(86%)	1(14%		6(86%)	1(14%		6(86%)	1(14%		6(86%)	1(14%		6(86%)	1(14%)		7(100%)		
	3a	7(100%)			7(100%)			7(100%)			7(100%)			7(100%)			7(100%)		
	3b	3(43%)	4(57%		3(43%)	4(57%		3(43%)	4(57%		3(43%)	4(57%		3(43%)	4(57%		3(43%)	4(57%	
	3c	1(14%)	6(86%		1(14%)	6(86%		2(29%)	5(71%		2(29%)	5(71%		2(29%)	5(71%		2(29%)	5(71%	
	4	1(14%)	6(86%		1(14%)	6(86%		2(29%)	5(71%		2(29%)	5(71%		2(29%)	5(71%		2(29%)	5(71%	
Following Directions	1a	4(57%)	3(43%		4(57%)	3(43%		5(71%)	2(29%		5(71%)	2(29%		7(100%)			7(100%)		
	1b	1(14%)	6(86%		1(14%)	6(86%		1(14%)	6(86%		3(43%)	4(57%		3(43%)	4(57%		3(43%)	4(57%	
	2a	5(71%)	2(29%		5(71%)	2(29%		5(71%)	2(29%		6(86%)	1(14%		6(86%)	1(14%)		6(86%)	1(14%	
	2b	5(71%)	2(29%		5(71%)	2(29%		5(71%)	2(29%		5(71%)	2(29%		5(71%)	2(29%)		5(71%)	2(29%	
	2c		7(100%			7(100%			7(100%			7(100%			7(100%		1(14%)	6(86%	
Fine Motor Skills	1a	1			3(100%)						3(100%)								
	1b	1			3(100%)						3(100%)								
	1c	1			3(100%)						3(100%)								
	2				3(100%)						3(100%)								
	3				3(100%)						3(100%)								
	4				3(100%)						3(100%)								
	5				3(100%)						3(100%)								
	6				3(100%)						3(100%)								
	7				3(100%)						3(100%)								

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent

According to the preceding table, students in the Plainview Primary School were assessed in the following areas: Measurement, Following Directions, and Fine Motor Skills. In the Measurement area, students were showing class mastery (100%) in three skills: 1, 2, and 3a. In one skill, 3b, the same percentage of students (43%) mastering this skill on the first visit was mastering it on the sixth visit. In two skills, 3c and 4, there was a small increase from the number of students mastering these skills on the first visit (14%) to the number mastering these skills on the sixth visit (29%).

In the Following Directions area, students showed growth from the first to the sixth visit in the following skills: 1a (43% increase), 1b (29% increase), 2a (15% increase), and 2c (14% increase). One skill, 2b, showed the same number of students mastering it throughout the visits. Though there was an increase for skill 2b, the majority of students did not master this skill (86%), even by the last visit.

In the Fine Motor Skills, all three students attempting these skills were able to master every time the skills were assessed.

TABLE X

RESULTS FROM MASTERY SKILLS LIST FOR SMITH STREET SCHOOL
(UNIONDALE SCHOOL DISTRICT)--EMOTIONALLY DISTURBED/LEARNING DISABLED STUDENTS

(N=10)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1				M3(30%)			M4(50%)			M5(50%)			M6(60%)			M7(70%)		
		2(20%)	8(80%)		G2(20%)	5(50%)		G1(12%)	3(38%)	2	G2(20%)	3(30%)		G3(30%)	1(10%)		G2(20%)	1(10%	
	2										M5(50%)			M5(50%)			M6(60%)		
		N.	A.		4(44%)	5(56%)	1	N.	A.		G1(10%)	4(40%		G3(30%)	2(20%)		G3(30%)	1(10%	
	3a										M8(80%)			M8(80%)			M8(80%)		
		7(70%)	3(30%)		8(80%)	2(20%)		8(80%)	2(20%)		G2(20%)			G2(20%)			G2(20%)		
	3b													M6(60%)			M6(60%)		
		2(20%)	8(80%)		5(50%)	5(50%)		4(40%)	6(60%)		6(60%)	4(40%		G2(10%)	3(30%		G1(10%)	3(30%	
	3c													M4(40%)			M4(40%)		
		1(10%)	9(90%)		3(30%)	7(70%)		3(30%)	7(70%)		4(40%)	6(60%		G2(20%)	4(40%		G2(20%)	4(40%	
	4	1(10%)	9(90%)		3(30%)	7(70%)		3(30%)	7(70%)		3(30%)	7(70%		3(30%)	7(70%		3(30%)	7(70%	
Following Directions	1a	6(60%)	4(40%)		7(70%)	3(30%)		7(70%)	3(30%)		10(100%)			10(100%)			10(100%)		
	1b	8(80%)	2(20%		9(90%)	1(10%		6(60%)	4(40%		10(100%)			10(100%)			10(100%)		
	2a	8(80%)	2(20%		8(80%)	2(20%		9(90%)	1(10%		10(100%)			10(100%)			10(100%)		
	2b										M5(50%)			M7(70%)			M7(70%)		
		3(30%)	7(70%		3(30%)	7(70%		3(30%)	7(70%		G3(30%)	2(20%		G2(20%)	1(10%		G2(20%)	1(10%	
	2c	2(20%)	8(80%		3(30%)	7(70%		3(30%)	7(70%		4(40%)	6(60%		5(50%)	5(50%		5(50%)	5(50%	
Fine Motor Skills																			
	1a													M9(90%)			M9(90%)		
		N.	A.		N.	A.		8(80%)		2	9(90%)	1(10%		G1(10%)			G1(10%)		
	1b										M5(50%)			M6(60%)			M7(70%)		
		N.	A.		N.	A.		5(62%)	3(38%	2	G1(10%)	4(40%		G1(10%)	3(30%		G3(30%)		
	1c										M5(50%)			M5(50%)			M7(70%)		
		N.	A.		N.	A.		5(62%)	3(38%	2	G1(10%)	4(40%		G2(20%)	3(30%		G2(20%)	1(10%	
	2	N.	A.		N.	A.		6(75%)	2(25%	2	N.	A.		N.	A.		N.	A.	
	3													M6(75%)			M6(75%)		
		N.	A.		4(44%)	5(56%	1	N.	A.		2(25%)	6(75%	2	G2(25%)			G2(25%)		
	4													M7(70%)			M7(70%)		
		N.	A.		5(56%)	4(44%	1	N.	A.		2(25%)	6(75%	2	G2(20%)	1(10%		G2(20%)	1(10%	
	5	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		N.	A.	
	6	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		N.	A.	
	7	N.	A.		7(70%)	2(22%	1	7(88%)	1(12%	2	9(100%)			9(100%)			9(100%		

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Towards Mastery; N.A.=Not Applicable for that Day

According to the preceding table, students from Smith Street School were assessed in the areas of Sequencing, Following Directions, and Fine Motor Skills. In Sequencing, most students, at least 90%, were either mastering or showing growth towards mastery in the following skills: 1, 2, and 3a. For the remaining three skills, 3b, 3c, and 4, there was a decrease in the number of students who were not mastering these skills by the sixth visit. Still, there were significant numbers of students who did not master these skills by the sixth visit.

In the Following Directions area, at least 90% of the students were mastering the following skills: 1a, 1b, 2a, and 2b by the last visit. The remaining skill, 2c, showed an increase of 30% of students mastering from first to last visit.

In the Fine Motor Skills area, at least 90% of the students attempting the skills in this area were mastering them or showing growth towards mastery.

TABLE XI

RESULTS FROM MASTERY SKILLS LIST FOR SOUTH MIDDLE SCHOOL (GREAT NECK)--SPECIAL EDUCATION CLASS

(N=10)

SKILLS		I Day			II Day			III Day			IV Day			V Day*			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing	1	M3(38%)			M3(38%)			M5(62%)			M5(62%)						M5(62%)		
		G5(62%)			G5(62%)			G3(38%)			G3(38%)						G3(38%)		
	2	M2(25%)			M3(38%)			M5(62%)			M7(88%)								
		G5(63%)	1(12%)		G5(62%)			G3(38%)			G1(12%)						8(100%)		
	3a	8(100%)			8(100%)			8(100%)			8(100%)						8(100%)		
	3b	8(100%)			8(100%)			8(100%)			8(100%)						8(100%)		
	3c	8(100%)			8(100%)			8(100%)			8(100%)						8(100%)		
	4	7(100%)			7(100%)			7(100%)			7(100%)						7(100%)		
Following Directions																			
	1a	M2(20%)			M3(30%)			M3(30%)			M3(30%)						M3(30%)		
		G2(20%)	6(60%)		G3(30%)	4(40%)		G3(30%)	4(40%)		G7(70%)						G7(70%)		
	1b	M3(30%)			M3(30%)			M3(30%)			M3(30%)						M3(30%)		
		G3(30%)	4(40%)		G5(50%)	2(20%)		G6(60%)	1(10%)		G6(60%)	1(10%					G7(70%)		
	2a	M5(50%)			M7(70%)			M7(70%)			M8(80%)						M8(80%)		
		G4(40%)	1(10%)		G3(30%)			G3(30%)			G2(20%)						G2(20%)		
	2b	M2(20%)			M3(30%)			M3(30%)			M3(30%)						M3(30%)		
		G7(70%)	1(10%)		G6(60%)	1(10%)		G7(70%)			G7(70%)						G7(70%)		
	2c	M0			M0			M0			M0						M1(10%)		
		G5(50%)	5(50%)		G6(60%)	4(40%)		G8(80%)	2(20%)		G10(100%)						G9(90%)		
Fine Motor Skills																			
	1a				M6(86%)			M6(86%)			M6(86%)								
		N.	A.		G1(14%)			G1(14%)			G1(14%)						N.	A.	
	1b				M6(86%)			M6(86%)			M6(86%)								
		N.	A.		G1(14%)			G1(14%)			G1(14%)						N.	A.	
	1c							M5(83%)			M6(86%)								
		N.	A.		6(100%)			G1(17%)			G1(14%)						N.	A.	
	2				M4(80%)			M3(60%)			M5(71%)						M5(71%)		
		N.	A.		G1(20%)			G1(20%)	1(20%)		G2(29%)						G2(29%)		
	3	N.	A.		N.	A.		N.	A.		N.	A.					N.	A.	
	4	M1(25%)			M3(60%)			M4(80%)			M4(57%)								
		G3(75%)			G2(40%)			G1(20%)			G3(43%)						N.	A.	
	5	N.	A.		4(100%)			N.	A.		7(100%)						N.	A.	
	6	N.	A.		N.	A.		N.	A.		N.	A.					N.	A.	
	7				M4(80%)			M5(83%)			M5(83%)								
		N.	A.		G1(20%)			G1(17%)			G1(17%)						N.	A.	

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent; G=Growth Towards Mastery

*=No information available for this day; N.A.=Not applicable for this day

According to the preceding table, students from the South Middle School were assessed in the following areas: Sequencing, Following Directions, and Fine Motor Skills. In the area of Sequencing, all students attempting the skills in this area were either mastering them or showing growth towards mastery by the last visit.

For the Following Directions area, improvement was shown by all students attempting the skills in this area. All students (100%) were, by the last visit, showing mastery or growth towards mastery in all skills in this area.

In the Fine Motor Skills area, by the last visit all students who attempted skills in the area were showing mastery or growth towards mastery.

TABLE XII

RESULTS FROM MASTERY SKILLS LIST FOR STRATFORD SCHOOL I (GARDEN CITY S.D.)--LEARNING DISABLED STUDENTS

(N=12)

SKILLS		I Day			II Day			III Day			IV Day			V Day			VI Day		
		M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Time Concepts	1a	3(25%)	9(75%)		3(25%)	9(75%)		5(42%)	7(58%)		8(73%)	3(27%)	1	5(83%)	1(17%)	5	8(100%)		2
	1b	4(33%)	8(67%)		4(33%)	8(67%)		7(58%)	5(42%)		9(82%)	2(18%)	1	4(57%)	3(43%)	5	9(100%)		2
	2a	5(42%)	7(58%)		5(42%)	7(58%)		8(67%)	4(33%		9(82%)	2(18%)	1	4(67%)	2(33%)	5	8(100%)		2
	2b	9(75%)	3(25%)		9(75%)	3(25%)		10(83%)	2(17%		9(82%)	2(18%)	1	7(100%)		5	8(100%)		2
	3	11(92%)	1(8%)		10(83%)	2(17%)		12(100%			11(92%)	1(8%)	1	6(100%)		5	9(100%)		2
Following Directions	1a	8(67%)	4(33%)		8(67%)	4(33%)		7(58%)	5(42%		9(82%)	2(18%)	1	5(71%)	2(29%)	5	7(100%)		2
	1b	6(50%)	6(50%)		6(50%)	6(50%)		10(83%)	2(17%		9(82%)	2(18%)	1	5(71%)	2(29%)	5	7(100%)		2
	2a	12(100%)			12(100%			12(100%			11(100%		1	7(100%)		5	9(100%)		2
	2b	12(100%)			12(100%			12(100%			11(100%		1	7(100%)		5	8(100%)		2
	2c	11(92%)	1(8%)		3(25%)	9(75%)		8(67%)	4(33%		10(100%		2	7(100%)		5	8(100%)		2
Fine Motor Skills	1a	N.	A.		N.	A.		N.	A.		N.	A.		7(100%)		5	N.	A.	
	1b	N.	A.		N.	A.		N.	A.		N.	A.		6(86%)	1(14%)	5	N.	A.	
	1c	N.	A.		N.	A.		N.	A.		N.	A.		4(57%)	3(43%)	5	N.	A.	
	2	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		9(100%)		
	3	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		N.	A.	
	4	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		N.	A.	
	5	N.	A.		N.	A.		N.	A.		7(78%)	2(22%)	1	N.	A.		N.	A.	
	6	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		N.	A.	
	7	N.	A.		N.	A.		N.	A.		N.	A.		N.	A.		7(100%)		2

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent;
N. A. =Not applicable on this day

According to the preceding table, students from the Stratford School I were assessed in the following areas: Time Concepts, Following Directions, and Fine Motor Skills.

In the three assessed areas, most students were showing complete class mastery (100%) by the end of the last visit. Only in the area of Fine Motor Skills did a few students show non-mastery by the last visit. The skills in the Fine Math Skills which showed difficulties were: 1b, 1c, and 5.

TABLE XIII

RESULTS FROM MASTERY SKILLS LIST FOR STRATFORD SCHOOL II (GARDEN CITY)--SPECIAL EDUCATION STUDENTS

(N=9)

SKILLS	I Day			II Day			III Day			IV Day			V Day			VI Day		
	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab	M	Non-M	Ab
Sequencing																		
1		9(100%)		3(33%)	6(67%)		3(38%)	5(62%)	1	8(89%)	1(11%)		9(100%)			9(100%)		
2		9(100%)		4(44%)	5(56%)		2(25%)	6(75%)	1	4(44%)	5(56%)		8(89%)	1(11%)		8(89%)	1(11%)	
3a		9(100%)		6(67%)	3(33%)		8(100%)		1	8(100%)			8(100%)			8(100%)		
3b		9(100%)			9(100%)		5(62%)	3(38%)	1	7(88%)	1(12%)		8(100%)			8(100%)		
3c		9(100%)		2(22%)	7(78%)		3(38%)	5(62%)	1	3(38%)	5(62%)		3(38%)	5(62%)		6(75%)	2(25%)	
4		9(100%)			9(100%)			8(100%)	1	1(12%)	7(88%)		5(62%)	3(38%)		6(75%)	2(25%)	
Following Directions																		
1a		9(100%)		4(44%)	5(56%)		3(38%)	5(62%)	1	6(67%)	3(33%)		4(44%)	5(56%)		9(100%)		
1b		9(100%)		3(33%)	6(67%)		4(50%)	4(50%)	1	6(67%)	3(33%)		6(67%)	3(33%)		9(100%)		
2a		9(100%)		6(67%)	3(33%)		5(62%)	3(38%)	1	9(100%)			9(100%)			9(100%)		
2b		9(100%)			9(100%)		4(50%)	4(50%)	1	4(44%)	5(56%)		9(100%)			9(100%)		
2c		9(100%)			9(100%)			8(100%)	1	1(11%)	8(89%)		3(33%)	6(67%)		6(75%)	3(25%)	
Gross Motor Skills																		
1		9(100%)			9(100%)		N.	A.		1(14%)	6(86%)		N.	A.		6(75%)	3(25%)	
2		9(100%)		2(22%)	7(78%)		N.	A.		6(86%)	1(14%)		N.	A.		9(100%)		
3		9(100%)			9(100%)		N.	A.		4(57%)	3(43%)		N.	A.		7(78%)	2(22%)	
4		9(100%)		1(11%)	8(89%)		N.	A.		2(29%)	5(71%)		N.	A.		9(100%)		

KEY: M=Mastery Skills; Non-M=Non-Mastery Skills; Ab=Absent;

According to the preceding table, students from the Stratford School II were assessed in the following areas: Sequencing, Following Directions, and Gross Motor Skills. In the area of Sequencing, growth was shown in all the skills. At least 75% of the students attempting the skills in this area were mastering them.

In the Following Directions area, students showed complete class mastery in all skills but one. In this skill, 2b, there was an improvement of 75% from students who could master the skill on the first day to the students who mastered the skill on the last day.

In the Gross Motor Skills area, there was significant growth in all skills in this area. Two skills, 2 and 4, showed complete class mastery (100%). The remaining three skills showed increases of at least 75% of students who could master them from first to last visit.

V. Curriculum Component

The project staff developed curricula based on the activities the students experienced during their visits to the Brookville site. These curricula was designed to be used to prepare students for the experiences they will have, as well as to provide classroom reinforcement after the visits. The materials developed also facilitated the students' and teachers' use of the out-of-doors for learning. Through the materials, it was also expected that students and teachers developed a sensitivity to the environment.

Three of the booklets developed to accompany the BOCES environmental education center at Brookville were:

1. Log Cabin and Broommaking
2. The Project Adventure Program
3. Homestead Ecology

Copies of these booklets are presented in Appendix D.

VI. Teacher Component

The teachers who participated in the BOCES Environmental Program for Special Education Students were asked to complete the Evaluation Questionnaire for Participants. A copy of this questionnaire is presented in Appendix E. The responses to the different items were compiled and are presented below, by question.

Question A: Worth of Activities

Teachers listed what they found to be true for their group. They are listed in order of the frequency they were mentioned.

1	Required cooperation	✓ ✓ ✓ ✓ ✓ ✓ ✓
6	New surroundings, activities, concepts	✓
9	Brought out leadership in some students	
3	Extended classroom learning	✓ ✓
2	Gave sense of history	✓ ✓ ✓
10	Stimulated language development	
7	Students' enthusiasm	✓
11	Outdoor living	
4	Basic skills for everyday survival	✓ ✓
5	Learn by action not book	✓ ✓
8	Understanding of environment	✓
12	Positive successful activity	

Question B: Further Activities Adoption to Suit Individual Classes

More frequent suggestions are listed first.

2	More individual production	✓ ✓ ✓
4	More use of senses on Nature Trail	
5	Introduction of math, map-making skills, and microscope	
1	No change necessary	✓ ✓ ✓ ✓ ✓ ✓
6	Introduction of work with animals	
3	More life skills	✓
7	Instructors should learn sign language for activities	

Question C: This program is recommended to:

Teachers answered that this program can be adapted to suit the needs of varied groups, including special, and regular groups.

Question D: Advantages of Adapting this Program

4	Required cooperation	✓ ✓
10	New surroundings, activities, concepts	
5	Student growth in following directions and completing tasks	✓
9	"Hands-on" type of instruction	
1	Historical concepts	✓ ✓ ✓
8	Skills in social development	
3	Basic survival skills	✓ ✓
2	Program adaptable to all students	✓ ✓ ✓
7	Firm and successful activities	
6	Develop appreciation of students' surroundings	✓

Question E: Suggestions to Naturalists

4	More individual production	
5	Activities should be A. M.	
6	Tailor length of task to group	
1	No need for improvement	✓ ✓ ✓ ✓ ✓ ✓
2	Students need to be kept busy constantly	
3	Firmness, complete structure, total control	✓
7	Good communication with teacher	
8	New programs for students repeating	
9	Should know sign language for each activity	

Question F: What objectives were fulfilled?

1	Significant breakthrough in cooperation among students	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
2	New experience outside classroom	✓ ✓ ✓ ✓
5	Built self-confidence	✓
3	Historical sense fostered	✓ ✓ ✓ ✓
4	Awareness of natural surroundings developed	✓ ✓ ✓
7	Encouraged creativity	
6	Improved listening and following directions	✓
8	Encourage verbal and written communication	
9	Introduction to survival skills	
10	Improved motor skills	
11	Coordinated with in-school social studies classes	

Question G, 1: Activities to Concentrate more on

Project adventure	√
Individual blacksmithing	√ √
None	√ √ √
Improve nature trail	√ √ √ √
Planting	
Log cabin had too many directions	
Cooking	
Wood projects	

2: Activities to Drop

Teachers unanimously responded none.

The second part of the questionnaire asked participating teachers to numerically rate the different parts of the program. The responses to this part have been compiled and are presented in Table 14 by school.

TABLE XIV

RESULTS FROM NUMERICAL SECTION OF TEACHERS' QUESTIONNAIRE BY SCHOOL AND AREA

AREA / SCHOOL	Rosemary Kennedy Center, BOCES	South Middle School Great Neck	Middle School	Plainedge Elementary, BOCES	Memorial Junior High Levittown	Smith Street School	H. B. Thompson	Baldwin Harbor Pk I	Baldwin Harbor Pk II	Stratford I	Stratford II	Mill Neck Manor I	Mill Neck Manor II	Mill Neck Manor III	Alden Terrace, Elmont	TOTAL
Relevance of Activities	4	4	5	5	5	5	5	4	3	5	5	5	4	4	5	4.56
Adaptability to Situation	2	4	5	5	5	5	5	4	4	5	5	3	4	4	5	4.38
Student Enjoyment	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	4.93
In-Service Workshops	3	3		5	5	3	NA	4		5	4	NA	NA		5	4.20
Preparation of Naturalists	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	4.87

Most areas evaluated by teachers were rated excellent. The two highest rated areas were students' enjoyment of the program and the preparation of the naturalists. The area which could use some improvement was the In-Service Workshops. Still, this area was rated above average.

VII. Conclusions and Recommendations

The evaluation of the different components of this program shows that all participants benefited from this program. Different groups of students showed growth in different skills, but in general growth was shown in most of the cases. Teachers expressed very positive assessments of all components of this program.

For specific recommendations, see what teachers responded to the first section of the questionnaire.

This is the type of project which should be refunded and replicated with other groups.

APPENDIX A

PILOT PROGRAM, SPRING 1979: DESCRIPTION AND COMMENTS

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

*** THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS ***

PILOT PROGRAM EVALUATION

BEST COPY AVAILABLE

BOCES Environmental Education Center at Brookville
Brookville, New York

PILOT PROGRAM, SPRING 1979

Description and Comments

I. Pilot Program

A. Teacher Workshop

1. Description

2. Feedback from Naturalists

B. Pilot Program with Students

1. Description of Population Served/Program Offered

2. Feedback from Naturalists

3. Feedback from Teachers

Introduction

The evaluation of the Homestead Ecology Program is of a formative nature. Thus, it seems appropriate to start with the evaluation of the pilot program which took place during the spring of 1979.

A systematic evaluation of the different components of the program was not the main objective of looking at the pilot program. The main objective was to gather information on different aspects of the program so as to, first, familiarize the evaluator with all the activities which the program dealt with; second, from this experience, to identify the parameter which needed to be evaluated and to develop instrumentation for those parameters for which instruments were non-existent. In gathering general descriptive information, it was possible to gather feedback from naturalists and participating teachers. This information has been included also for it could be used by everyone involved in the program in restructuring next fall and spring's offerings.

I. Pilot Program

A. Teacher Workshop

1. Description:

The 19 teachers who participated in the BOCES Homestead Ecology Program for the Handicapped attended a workshop at the Brookville site, before the program began. The workshop started with a meeting on Thursday, February 15, 1979, from 9:30 A.M. to 2:30 P.M., at which the teachers were introduced to the BOCES staff, and the Homestead Ecology Program was outlined. After this meeting, a tour of the site was conducted. The teachers were then invited to participate in the same activities their students would later encounter.

Led by the BOCES instructors who would conduct the activities, the teachers went through the entire program. Each teacher made a hook at the blacksmith forge, constructed a broom, walked the nature trail, worked with tools at the log cabin, and participated in adventure education activities. They were also introduced to our farming and outdoor cooking programs.

In general, these teacher activities went well. The teachers were very enthusiastic about the crafts. Like their students, they were excited about the idea of producing a finished product that they could take home.

The teachers involved themselves in the program enough to get a feel for what their students would later be doing. In addition to these hands-on activities, the teachers were also provided with background information about the concepts that would be stressed during the Homestead Program. This information was designed to be used by the teachers to prepare their students for a more meaningful learning experience.

Throughout the entire workshop, and at a meeting held at a later date, the BOCES staff solicited information from the participating teachers concerning their classes. It was our hope that after becoming familiar with out program and facilities, the teachers would be able to give us valuable ideas on how to better adapt these Homestead activities to the special needs and abilities of the handicapped students.

The 19 teachers who participated in the pilot spring workshop came from 10 districts: BOCES, Elmont, Glen Cove, Manhasset, Uniondale, Westbury, Mill Neck Manor, Garden City, Great Neck, and Levittown. They were aided by three naturalists from the Brookville Center. (See Appendix A for a complete list of teachers, districts, and participating naturalists.)

2. Feedback from Naturalists:

The reaction of the teachers to this workshop and our program in general was very favorable. In addition to their participation in the program activities, the teachers provided us with some very helpful information. Although some of the teachers were very negative about their students' ability to participate in the activities, most were very enthusiastic about the benefits a program of this nature could have for their students, and gave us some ideas on how we could modify our activities to suit their class. A few teachers went so far as to return to the Brookville site on their own time, to work out the details of their upcoming trips. Information and materials gathered from these teachers have contributed to the permanent Homestead Ecology Program at Brookville.

In looking back at the pilot program, it is our opinion that the teacher workshop had a very positive effect on the program. At least three points of impact could be readily identified:

a. When the teachers arrived at the Brookville site with their classes, they knew what was expected of them, and what to expect from us.

b. The rapport that had developed between the teachers and the BOCES staff made communication easy and helped the program to run smoothly.

c. The information the teachers gained from the workshop was, in most cases, used to introduce the activities to the students, and provide them with a factual background. This made our job easier, because the students knew something about what we were presenting, and were not being exposed to completely foreign concepts. The teachers were also able to show their students the things they made at the Brookville workshop, thus increasing the classes interest and excitement in the Brookville experience.

In addition to preparing the students for their trip to Brookville, the teachers were also able to assist us in some of the on-site activities. Because of their first-hand knowledge of the programs, many of the teachers were able to help set up for the crafts activities, and distribute materials. Some were even able to act as assistants to us, and help instruct the students in the activities. This made us more effective, and our job much easier. The teachers' knowledge of the problems of their students made them valuable helpers. Perhaps the most important result of the teacher workshop was that throughout the entire Homestead experience, the teachers were able to make us aware of any problems we might encounter relating to, and working with, their particular students.

B. Pilot Program with Students

After the teachers workshop and from April through June, 1979, teachers with groups of students went through the Homestead Ecology Program. In Table I appears a summary of each group's visits, including dates, number of students who plan to attend, numbers of students who attended, planned time of arrival, and departure, actual time of arrival and departure, areas of special emphasis requested and activities carried out during each visit. See Appendix C for a detailed day to day description of the program.

TABLE I
Summary of Groups' Visits to the HEP during Spring, 1979

Group	Dates	# of Students Planned	# of Students Attending	Arrival/ Departure Planned	Arrival/ Departure Actual	Special* Emphasis	Activities
A	4/23	8-9	8	10:15-2:00	11:20-1:30	CDGHIJK MOP	Farming/ Cabin Construction
	5/11		8		10:30-1:00		Broommaking/ Blacksmithing/ Nature Trail
	5/28		4		10:15-1:15		Outdoor Cooking/ Project Adventure
$B_{(R)}$	4/2	6	rescheduled	10:15-		HMP	
	4/23		rescheduled				
	5/28		9		10:30-12:45		Project Adventure/ Blacksmithing
$B_{(S)}$	4/2	7	rescheduled	10:15-		BDEHMP	
	4/23		rescheduled				
	5/28		9		10:30-12:45		Blacksmithing/ Project Adventure

TABLE I

Summary of Group's Visits to the HEP During Spring, 1979

Group	Dates	# of Students Planned	# of Students Attending	Arrival/ Departure Planned	Arrival/ Departure Actual	Special* Emphasis	Activities
C	4/2	12	16	10:30-1:40	11:15-1:00	ADFGHJ	Farming/Log Cabin
	4/25		resched-uled		10:45-1:30	KLMOP	Broommaking
	5/29		12		11:15-1:30		Outdoor Cooking/ Project Adventure
D	4/3	11	10	10:00-1:00	10:30-1:00	CDIKOP	Nature Trail/ Broommaking/ Farming
	4/25		10		10:15-1:00		Cabin Construction/ Project Adventure
	5/29		9		10:15-1:00		Outdoor Cooking/ Blacksmithing
E	4/3	Not Given	14	Not Given			Cabin Construction/ Nature Trail/ Farming
	4/26		resched-uled				
	6/8		14				Project Adventure Outdoor Cooking
F	4/3	12-15	14	9:25-2:15	9:30-2:00	A-P, except M	Farming/ Cabin Construction
	4/26		15		9:30-2:00		Cabin Construction/ Broommaking
	5/23		14		9:30-1:30		Blacksmithing
	6/11		14		9:30-1:30		Nature Trail/ Project Adventure
G	4/4	8	7	9:00-1:30	9:00-1:30	None Given	Cabin Construction/ Nature Trail/ Farming
	5/14		7		9:30-1:30		Farming/ Broommaking/ Blacksmithing
	6/12		6		9:10-1:30		Outdoor Cooking/ Project Adventure
H	4/4	9	9	9:30-1:30	9:30-1:30	CDIL	Log Cabin/Nature Trail/Farming
	5/21		9		9:30-1:30		Finish Cabin Project Broommaking/ Weed Farm
	6/12		Cancelled				

TABLE I

Summary of Group's Visits to the HEP During Spring, 1979

Group	Dates	# of Students Planned	# of Students Attending	Arrival/ Departure Planned	Arrival/ Departure Actual	Special* Emphasis	Activities
I	4/4	11	11	9:45-2:30	9:30-2:30	BCDGH	Farming/ Nature Trail/ Cabin Construction
	5/21		9		9:30-2:30		Blacksmithing/ Broommaking
	6/14				3:15-		Nature Trail/ Farming/
	6/15				2:30-		Project Adventure
J	4/6	12	9	9:30-2:30	9:30-1:45	CDHJP	Nature Trail/ Farming/ Cabin Construction
	5/21		13		9:45-1:45		Broommaking/ Blacksmithing/ Farming
	6/15		Cancelled				
L	4/16	12	10	9:30-1:45	9:30-1:45		Farming/ Cabin Construction Nature Trail
	4/17		4		9:30-1:45		Blacksmithing/ Broommaking
	4/20		11		9:30-1:45		Outdoor Cooking/ Project Adventure
M	4/16	12	8	9:30-	9:30-2:00		Farming/ Nature Trail/ Cabin Construction
	4/18		10	9:30-	9:40-1:45		Blacksmithing/ Broommaking
	4/20		9	9:30-	9:35-1:45		Outdoor Cooking/ Project Adventure
N	4/23	Not Given	9	Not Given	11:30-1:30		Log Cabin Construction
	5/11		9		10:30-1:00		Broommaking/ Blacksmithing
	5/28		8		10:30-1:00		Outdoor Cooking/ Project Adventure
O	5/22	15	12	Not Given	9:00-1:30		Broommaking/ Blacksmithing
	6/14	15	11	Not Given	9:00-1:30		Outdoor Cooking/ Project Adventure

*See Appendix B for complete list of Special Emphasis.

1. Description of Population Served/Program Offered:

From the preceding table, one can make the following observations:

a. There were 45 dates for visits scheduled during the pilot program. Eight of these had to be changed.

b. A total number of 368 students were served during these 37 visits, making each visiting group an average of 10 students.

c. A grand total of 133 hours of instruction was devoted during these sessions. The average session took 150 minutes or $2\frac{1}{2}$ hours. The average session should be 4 hours, for time has been identified as one of the factors influencing the learning experience.

d. The following handicapped groups were served: TMR, LD, ED, Deaf/Multi-handicapped, Intellectually Weak, and Slow Learners.

2. Feedback from Naturalists:

It is our feeling that the pilot grant program for the handicapped was, overall, very successful, although some problems did exist. Undoubtedly, the most positive aspect of the program was the relaxed, yet stimulating, learning environment that existed during the students' visits to the Brookville site. These handicapped students, many of whom have had very limited experiences, were introduced to a totally new and exciting kind of educational adventure. They were encouraged to explore, investigate,

and learn, free from the pressures and confines of the classroom. For many of these youngsters, it was a rare opportunity to not only succeed, but excell. This often led to a noticeable increase in pride and self-confidence.

Due to the nature of the activities in which the students participated, they almost always worked together in a group setting. This produced some very interesting interaction between the students. As they became more aware of their classmates' problems and abilities, an atmosphere of cooperation and encouragement often developed. The more capable students assumed leadership roles, and some previously isolated students joined in the group effort. Many of our activities were designed with this goal in mind, and in this respect, were a great success.

A by-product of this increased socialization was the teachers' involvement with the group. In almost every case, the teachers participated in the activities with the students, and became members of their groups. The traditional teacher/student relationship was altered greatly. This not only allowed the students to see their teacher in a new, more personal way, but enabled the teachers to gain greater insight into their students. It

was our observation that the days spent at Brookville helped bring student and teacher closer together.

On a more academic level, we found that the students did assimilate a good deal of the basic concepts we presented to them. At the very least, they left the program with some feel for the Homestead experience, and a sense of curiosity and interest in new areas. We do feel, however, that the students would have benefited more if the visits were scheduled closer together, and if the teacher used the Brookville experience as a stepping stone to further study.

Although many of the positive results of this program are intangible, and therefore very hard to measure, the problems we encountered were of a very different nature. The major stumbling blocks this program faced were those of time, numbers, and logistics. Ours is a hands-on approach to learning. Such an approach demands adequate time for each student to work at his or her own pace. In addition, time is needed for introduction and wrap-up of each activity. Unfortunately, we did not always have ample time to spend as long as we would have liked on each activity. This problem was mainly due to the fact that the amount of time a class stayed at Brookville was often determined by the availability of their busses. Although

all the classes scheduled full-day programs, they usually arrived late, and had to leave early. This caused the activities to be cut short, detracting from their effectiveness.

A similar problem arose when we encountered groups that were too large. The ability of the BOCES instructor to provide a quality, hands-on, program to a handicapped group is greatly diminished if that group contains more than ten or twelve students. Although we set a limit of twelve students per group, some schools brought more than that number. With a large group, the instructor was not able to work closely enough with each individual, nor could he get to know the special needs and problems of the students. Large groups also required more time and materials for each activity, and had a tendency to encounter behavior problems.

The final recurrent problem that we faced, was one that is encountered by all outdoor education programs; that of inclement weather. It rained quite often during this pilot program, which had a tendency to limit the activities in which the groups could participate. This problem was amplified, due to the fact that our site has

very limited indoor facilities. We simply cannot handle more than two groups on a rainy day.

In closing, we would like to state that we believe the positive aspects and results of this pilot program far outweigh the negative. We have learned a great deal that will contribute to our future efforts in this area, and we feel this portion of the program was highly successful.

3. Feedback from Teachers:

In order to generate feedback from the pilot program from teachers, each teacher was interviewed by the program coordinator. The responses are summarized as follows. The pilot experience was described as an "excellent experience," and one which justifies itself. The teachers saw definite progress in students' confidence, outgoingness, and socialization. The teachers recommended more time for the activities, overnight experiences, and a decrease in the amount of time kids had to wait around in certain activities.

The staff was praised on their excellence, the way they dealt with their students and their patience and knowledge in handling every situation. They were asked to remember to speak simply and specifically to certain groups. In Appendix D, we have included the Teachers' Comments, as they were recorded.

APPENDIX B

MASTERY SKILLS LIST

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

*** THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS ***

STUDENT EVALUATION

BEST COPY AVAILABLE

BOCES Environmental Education Center at Brookville
Brookville, New York

DIRECTIONS FOR MASTERY SKILLS LIST

Skills have been listed for eight areas:

1. Measurement
2. Time Concepts
3. Sequencing
4. Following Directions
5. Classification
6. Association

} COGNITIVE DOMAIN

7. Gross Motor
8. Finer Motor

} MOTOR DOMAIN

Choose at least two areas from the cognitive domain (1-6) and one area from the motor domain (7-8). Use the chosen areas to evaluate each student in your group from the first to last visit.

Note: If particular areas are not entirely suitable for your group, please complete as much information as is applicable. Thank you.

STUDENT EVALUATION FOR GRANT 28-90-00-39-2

MASTERY SKILLS

Student's Name _____ X=Yes
School _____ O=No
District _____ Handicap Group _____

I	II	III	IV	V	VI

I. Cognitive Skills

A. Measurement

1. Student can compare same objects of different lengths, identify which are uneven (shorter, longer) and even all objects.
2. Student can approximate amount (length) of material needed to complete a task.
3. Student can approximate
   a. distance
   b. weight
   c. volume
4. Student can orient herself/himself directionally (north, south).

B. Time Concepts

1. Student can approximate how long a task took to complete.
   a. specific
   b. relative
2. Student is aware of different
   a. day lengths
   b. the seasons
3. Student is aware of the existence of a past (his/her own and others), when certain materials and conveniences did not exist.

C. Sequencing

1. Student can identify order of events in something which happened.
2. Student can identify the steps necessary to complete a craft item.

Name of Student _____

I	II	III	IV	V	VI

Name of Student_____

I	II	III	IV	V	VI

3. Student is aware that all new living things are created from already living things.
4. Student can associate tools required for each craft item s/he makes with the craft.

II. Motor Skills

Key: A (attempted)
S (succeeded)

A. Gross Motor Skills

1. Balance on trace tracks.
2. Swinging on rope.
3. Hand over hand.
4. Climbing wall.

B. Finer Motor Skills

1. Eye-hand coordination:
   a. hitting with a hammer.
   b. hitting a target with a hammer.
   c. hitting a nail on the head.
2. Using an axe.
3. Using a gauge.
4. Cutting in a straight line.
5. Bending wire with pliers.
6. Use of farm tools (hoe, etc.).
7. Use of hand tools (saw, etc.).

APPENDIX C

STUDENT ESSAY

BEST COPY AVAILABLE

Name:_____ District:_____

School:_____

STUDENT ESSAY

Students will write a letter to themselves describing in detail the Brookville experience, including:

a. what they have done;
b. what they hope to do during the up-coming visits;
c. the people they met and how they helped them; and
d. how they feel about the experience.

APPENDIX D

CURRICULA DEVELOPED TO ACCOMPANY BROOKVILLE EXPERIENCE

LOG CABIN CONSTRUCTION

AND

BROOMMAKING

at the

BOCES ENVIRONMENTAL EDUCATION CENTER AT BROOKVILLE

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

BEST COPY AVAILABLE

PREFACE

Our role at BOCES is to facilitate your use of the out-of-doors for learning. One of our main goals is to enable students, teachers, and administrators to develop a sensitivity to the environment through action-oriented, problem-solving interdisciplinary programs.

LOG CABIN CONSTRUCTION AND BROOMMAKING are two aspects of the multi-faceted Homestead Ecology Program at the Brookville site designed to meet this goal.

The BOCES Outdoor and Environmental Education Center at Brookville offers a unique opportunity for all school groups.

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

Mr. Norman Skliar, Administrator

LOG CABIN CONSTRUCTION

1. TREE SELECTION

Pine is best suited for cabin construction because:

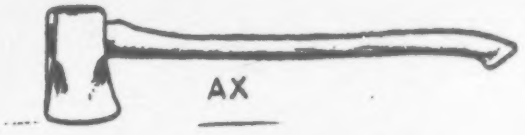
- *it is a softwood, making it light in weight and easy to work,*
- *the pine sap effectively "seals and waterproofs" the logs; the sap also acts as an insect deterrent, and*
- *pine trees grow very straight with little taper. This means that the diameter of the tree changes little with height.*

2. TREE REMOVAL

Trees may be removed either by felling (cutting down) or by girdling. Girdling a tree involves removing the bark from the trunk, near the base of the tree. Once the bark is removed, the upward flow of nutrients from the roots is stopped and the tree eventually dies. After the dead tree stands for a few months, it will cure (dry out) and be ready for use. If freshly cut wood is used, a waiting period to allow for shrinkage of the wood can delay the construction progress.

3. REMOVAL OF LIMBS

As the pine tree grows taller, the lower branches die from lack of light, making them easy to remove.



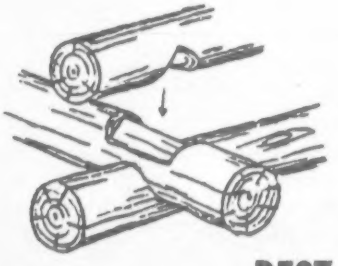
4. BARK REMOVAL

A drawknife is used to peel bark from the log. This is an important process for several reasons:

- *wood-boring insects (e.g. bark beetles) live under the bark and eat the wood from the inside,*
- *if the bark is not removed, it will eventually rot and fall off the logs,*
- *without bark, the logs are much smoother, and*
- *the chinking (mud) will stay in place.*

5. LOG NOTCHING

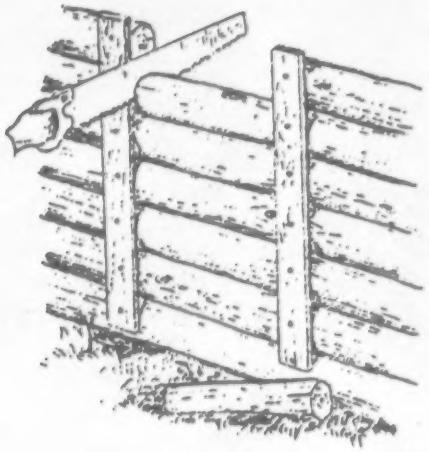
The log is notched with a gouge to fit on the log below it. The notch must always point down so that rain water will not collect inside. Further, the notches give the cabin strength.



BEST COPY AVAILABL

6. *FRAME CUTTING*

The windows and door frame are cut out with the cross-cut saw, after the walls are up.



7. *ROOF CONSTRUCTION*

Notches in the roof rafters must be made. These rafters are called Pirilons, and run the length of the roof, rather than meeting at the peak.

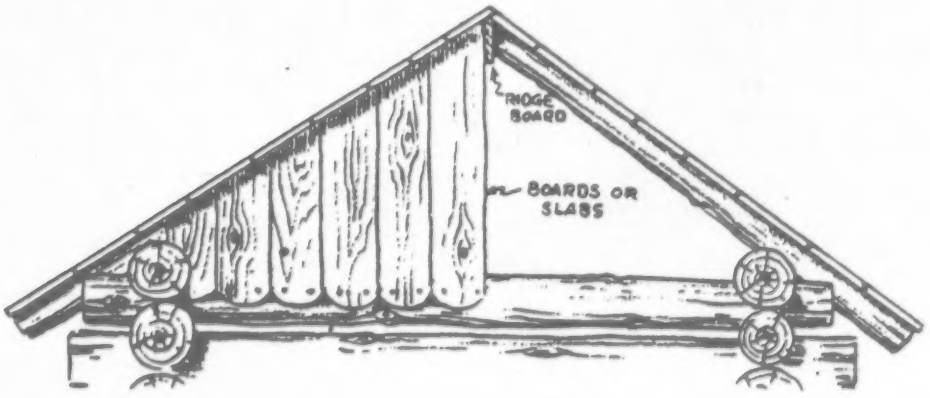


Fig. 40. Roof supported by rafters.

8. *SHINGLING*

The roof shingles are made of cedar, chosen for its resistance to weather and the fact that it is easy to split.

9. *CHINKING*

When the cabin is completed, the the gaps between the logs must be "chinked." Chinking is a mixture of mud, clay, lime, and filler (pine needles, straw, leaves) which is used to fill in the spaces between the logs. Once the lime is added to the mixture, it becomes very hard and insoluble to water. This enables the cabin to withstand heavy rains.

BEST COPY AVAILABLE

The homesteader had to carefully plan the establishment of his new home and lifestyle. Some important considerations were:

- *Where will I live while the cabin is being constructed?*
- *What provisions have I made for food and water during construction?*
- *Where will I get my tools sharpened and repaired?*
- *After the cabin is finished, how will I furnish it?*
- *How will I supply heat and light to the cabin?*
- *What will I do for a living?*

REFERENCES

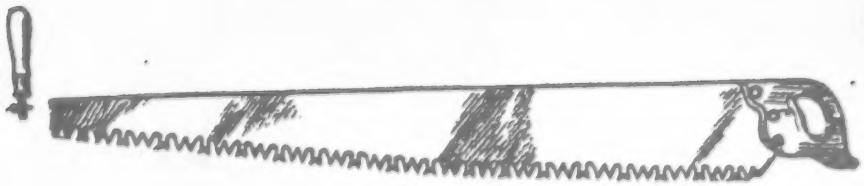
Hunt, W. Ben. How to Build and Furnish a Log Cabin. Collier Books: New York, 1974.

Sloane, Eric. A Museum of Early American Tools. Funk and Wagnalls: New York, 1964.

Symonds, George W.D. The Tree Identification Book. M.Barrows and Company, 1958.

BEST COPY AVAILABLE

NOTES



ONE-MAN CROSSCUT SAW

BEST COPY AVAILABLE

BROOMMAKING

HISTORY

The first brooms were made of twigs and used like rakes to clean dirt floors. With the introduction of wooden floors, the straw broom, make of broom corn (Sorghum vulgaris), was developed. These natural brooms are still used today, although most are now mass produced and often made of synthetic materials.

Broom corn differs from regular corn in having "straw" rather than an ear of corn at the top of the stalk. It is easily grown, and the high number of seeds produced make replanting the crop a simple matter. While it is named for one obvious role, broom corn met many of the homesteader's needs:

- as bedding for animals
- as a food substitute for farm animals in bad weather
- as ground cover to prevent erosion
- as a fire starter
- as part of a soil turnover and crops rotation program, where the broom corn was grown and plowed under to renew the nutrients in the soil

MAKING A BROOM

Broommaking today is true to the traditional process of the homesteaders, who grew and harvested the materials needed to manufacture their own brooms.

Harvesting:

The harvesting procedure of an earlier time is reflected in that of Monroe Ledford of North Carolina, who has been a broommaker for many years:

> "September is when I start cutting it--before frost--when the head begins to be pretty well filled out, while the seeds are still green. This happens before you know it. Then I go and break the stalk about three feet below the top, and let that hang down. This helps the brush to stay straight. If the stalk is not broken like this, the straw becomes too heavy with seeds and begins to fall down and turn the wrong way... You want to leave it out to cure, but you must be careful not to let it get rained on too much; it mildews and deteriorates pretty

96 BEST COPY AVAILABLE

quickly while its green... It's got to have sunshine to cure" (Page 445).

MATERIALS

A comparison of materials used in the homesteading era and modern day clearly indicates modern reliance on the early equipment:

Early Materials and Tools	*Modern Materials and Tools*
broom corn	*broom corn*
sturdy stick	*sturdy stick*
twine	*twine*
strip of animal skin or vein	*wire*
knife/ax	*scissors*
weaving awl	*weaving awl*
	needle nose pliers

Procedure:

Once the broom corn is cured, and the necessary materials and tools have been acquired, the broom can be assembled according to this procedure:

- *select a straight sapling or tree branch; sharpen one end*
- *soak a handful of broomcorn in water to soften the stems*
- *match up the nodes (where the straw meets the stalk)*
- *wrap the bundle of broomcorn with two pieces of wire or string*
- *cut stem and straw ends evenly*
- *remove excess seeds*
- *weave string through straw to give the broom strength*
- *insert handle in the center of the stem end*

Reference:

Quotation source:

Wigginton, Eliot, Ed. Foxfire Book Three.
Anchor Press: New York, 1972.

BEST COPY AVAILABLE

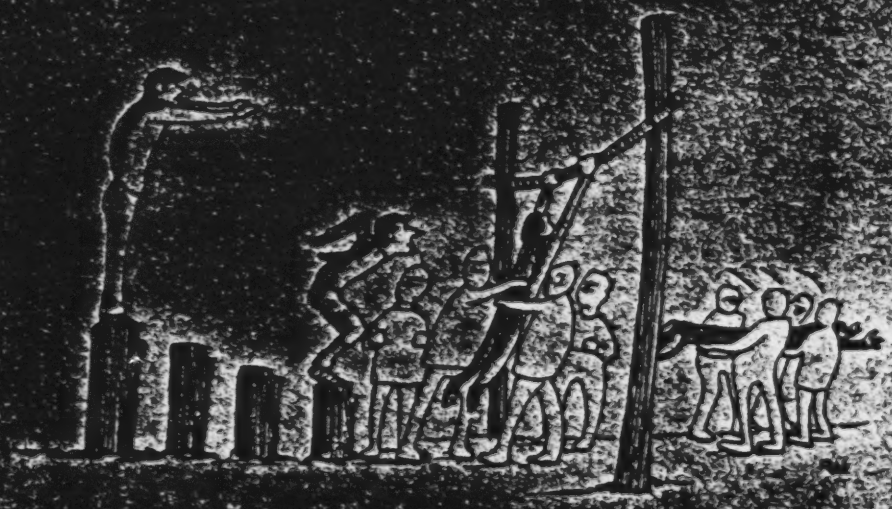
NOTES

BEST COPY AVAILABLE

THE PROJECT ADVENTURE PROGRAM

at the

BOCES ENVIRONMENTAL EDUCATION CENTER AT BROOKVILLE



BEST COPY AVAILABLE

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

BEST COPY AVAILABLE

PREFACE

Our role at BOCES is to facilitate your use of the out-of-doors for learning. One of our main goals is to enable students, teachers, and administrators to develop a sensitivity to the environment through action-oriented problem-solving inter-disciplinary programs.

The BOCES Outdoor and Environmental Education Center at Brookville offers a unique opportunity for all school groups.

This booklet has been prepared to acquaint teachers with the philosophy of Project Adventure and to introduce a variety of specific activities and approaches utilized in achieving the goals and objectives of this program.

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education
Mr. Norman Skliar, Administrator

PROJECT ADVENTURE

Philosophy

Project Adventure is a group, action-oriented approach to education utilizing the principles of group dynamics to actuate the physical and mental abilities of the group.

Procedure

A group (ten to fifteen persons) is presented with a challenge situation. The objective is to have all members cooperatively design a solution and accomplish the task as quickly and efficiently as possible. Each activity is designed so that no one person can solve the problem alone; only through a united physical and mental effort can the group succeed.

Approach

The activities in this booklet have been listed in an approximate order of increasing difficulty based on physical, intellectual, and emotional demands. By overcoming the less demanding tasks, the students can become better prepared to attempt the more challenging situations.

By releasing or increasing the restrictions placed on a group as they meet the challenge of a particular activity, the Naturalist can quickly and easily adapt most activities to nearly every group. The following factors can be adjusted to alter the level of difficulty:

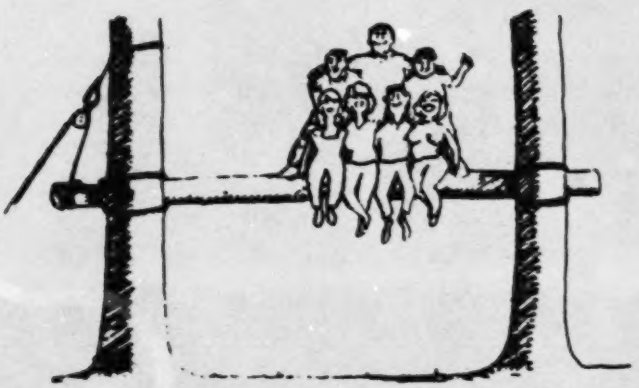
1. limit time;
2. limit use of one or both arms;
3. "disable" a member of the group;
4. declare that the entire group must begin again if one member fails; and
5. set limits on assistance. For example, once someone has successfully reached his goal, he may not assist those following him.

A Note to the Teacher

During the Project Adventure Program at the Brookville site, a group may be challenged by any combination of activities as determined by the Naturalist's discretion and his interpretation of the group's physical and mental abilities.

Teachers already familiar with Project Adventure are welcome to select activities which they interpret as most appropriate for their class. Any teacher selections should be indicated to the Program Coordinator at the Office of Outdoor and Environmental Education prior to the field experience.

Each group will be responsible for abiding by and assisting in safety procedures (spotting, etc.) set forth at the start of each activity.



BEST COPY AVAILABLE

Project Adventure Activities

1. Life in the Forest

Each person has a tag pinned to his back which names a natural object (bird, insect, sun, etc.).

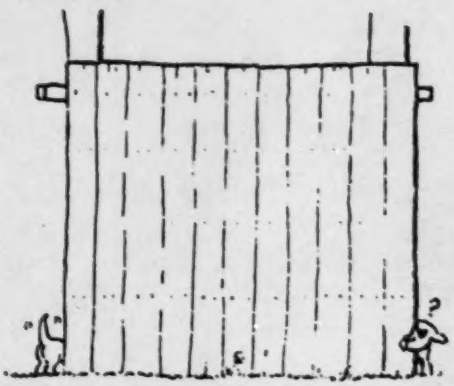
Through interaction, but without verbal communication, each person must discover his identity and his role in nature.

2. Everyone Touch Everyone

Each member of the group must touch all other group members simultaneously for thirty seconds.

3. Onion Trail

An onion is rubbed at nose level on several objects. The group must pick up the scent and follow the trail to its destination.



ADVENTURE WALL (No. 18)

4. Blind Trust Walk

A blindfolded student is led through an outdoor area by a sighted partner. The emphasis of the walk is on the sense of touch between partners as well as the blindfolded individual's sense of touch, smell, taste, and hearing in interpreting the natural environment.

5. Tug-of-War

The group is divided in half. Each half pulls on opposite ends of a rope, trying to pull the other group over a designated middle line.

6. Monster

The group must move a specified distance as an entire body, having only half the number of hands and feet on the ground as the total number of hands and feet in the group.

7. Knots

Students form a circle, facing center. Each person takes a left and right hand of two different people in the group. He may not join hands with the people directly next to him. The group must "untangle" itself without releasing any hands.

8. All Aboard

The entire group must hold itself off the ground on a stump, crate, etc., for a specified amount of time.

9. Trace Track

All members must balance and walk along a "track" consisting of planks and stumps set at various distances apart and at varying levels above the ground.

10. Swinging Rope

All members of the group must move to a designated area, reachable only by swinging on a suspended rope.

11. Trust Fall

One student, in a stiff, standing position, falls into the waiting arms of the group. Each person may have an opportunity to "fall."

ALL ABOARD (No. 8)

BEST COPY AVAILABLE

12. Pyramid

The group must build a symmetrical people-pyramid using all of its members.

13. Bear Mark

The group is divided in half. Each group tries to make the highest chalk mark on a specific tree.

14. Traffic Jam

Two groups, of at least four members each, exchange places on a line of squares which number one more than the total number of participants. All students to the left of center must end up on the right.

15. Right Angles Right--Board Stretcher

The entire group must move to a designated area by using the available boards. Neither the boards nor the participants may touch the ground.

16. Cable Bridge

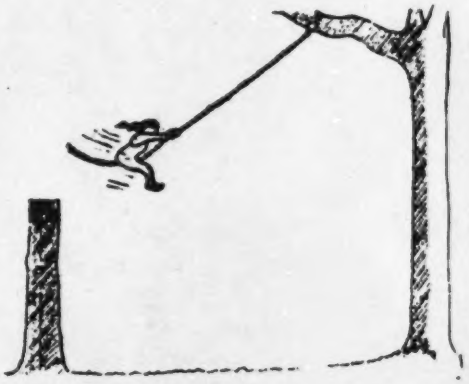
Each person in the group must pass single file over a suspended bridge consisting only of three cable cords.

17. Electric Fence

All members of the group must get over an "electric fence" designated by a rope stretched between two or more trees.

18. Adventure Wall

All members of the group must scale and climb over an $8\frac{1}{2}$ foot high wall.

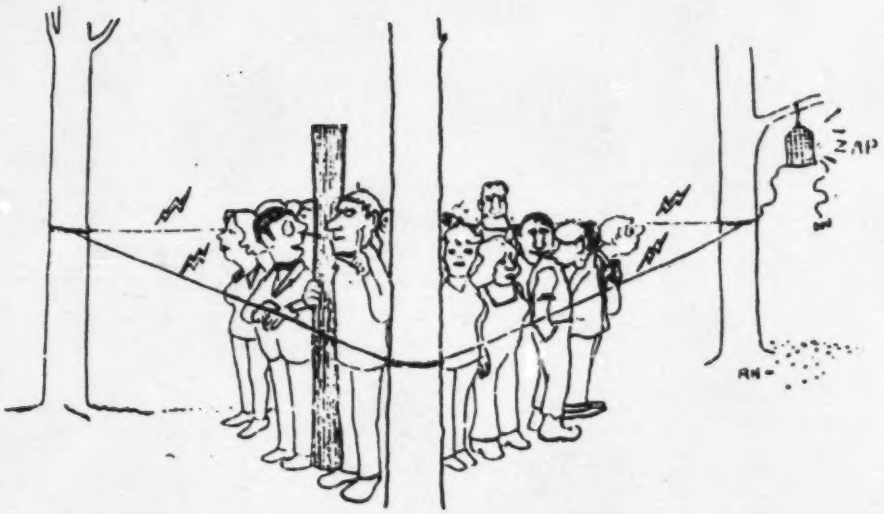


SWINGING ROPE (No. 10)

BEST COPY AVAILABLE

19. Swinging Log

Each person in the group must walk the length of a log which is suspended by rope from a tree.



ELECTRIC FENCE (No. 17)

20. Four-Part Obstacle Course

Each student moves through the course, beginning at
A: swinging rope to landing platform, to
B: hand over hand rope bridge, to
C: cable bridge (see #14), to
D: cable zip, glide down a wire cable on a pulley.

Recommended Reading and Source Material

Rohnke, Karl, Cowstails and Cobras. Hamilton, Massachusetts 01936: Project Adventure, 1977.

Illustrations reprinted from the text, Cowstails and Cobras, with permission of the author.

BEST COPY AVAILABLE

NOTES

BEST COPY AVAILABLE

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY

Salisbury Center
Valentines Road and The Plain Road
Westbury, New York 11590

Richard L. Ornauer, President
Benjamin A. Demos, Vice President
Dr. Robert H. Bell, District Clerk
George Farber, Vice District Clerk
Joan B. Brenner
Charles R. Russell Jr.
Henrietta B. Tuthill
Simeon A. Wittenberg

Dr. William T. Callahan, District Superintendent

DIVISION OF GENERAL SERVICES

Dominick J. Mupo, Assistant Superintendent

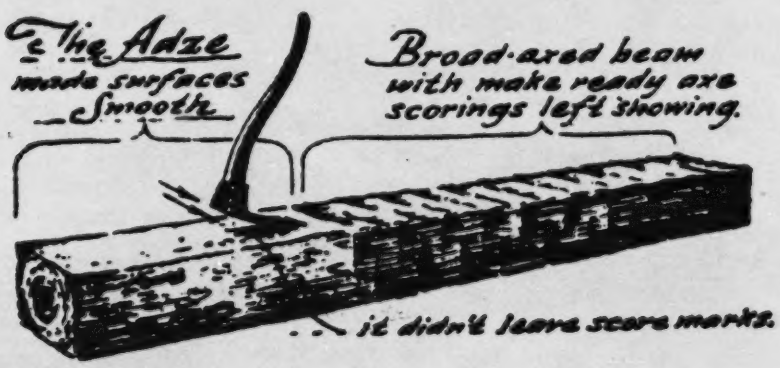
Norman Skliar, Associate Administrator
Outdoor and Environmental Education

HOMESTEAD ECOLOGY

Homesteaders had deep roots in and a profound respect for the land that furnished virtually all of their needs. We are still dependent on the land and its resources, but removed from a direct dependence, we have very little understanding of our place in nature. This alienation from the land is a contributing cause of our current environmental problems.

Observing homesteading life and livelihood provides one level of understanding of early American living. Participation in the crafts, skills, and workaday activities will provide an opportunity to develop a deeper appreciation of the hardships and satisfactions experienced by our ancestors. So, we hope that all who visit the BOCES Brookville Environmental Education Center will participate in all of the activities available in this living history project.

At the Brookville Environmental Education Center, students participate in a highly sensory, "hands-on" educational experience. Students are given the opportunity to participate in early American crafts, discovering first hand, the jobs and hardships of pioneer life, and explore the wilderness of Long Island as the early settlers found it. This experience offers the unique and highly effective opportunity to see history in action and learn by doing.



BEST COPY AVAILABLE

What is a Homestead?

Basically, a homestead is the home adjoining land occupied by a family. But by our interpretation, true homesteaders differ in many fundamental ways from the modern suburbanite. Both require the basics of food, clothing and shelter, but obtain them in very different ways.

HOMESTEAD	SUBURBAN HOME
1. Derive livelihood from land; agriculture, lumber, water, etc.	1. Derive livelihood elsewhere: use land for ornament, recreation, and to maintain privacy.
2. Producer-barter economy: self-sustaining; provides almost all basic needs of family. Surplus production bartered for needs that cannot be provided, such as flour milling and salt.	2. Consumer-cash economy: all needs including maintenance and repair of house and equipment obtained for cash. Surplus cash used to purchase luxuries.
3. Income nature-dependent: weather damage, or loss by insect pests or disease.	3. Income constant or dependent on business success.
4. Primary energy source is muscle power of family members and to a limited extent, muscle power of farm animals. Fuels: wood for heating and cooking. Coal for blacksmithing.	4. Primary energy sources: electricity, fuel oil, natural gas and gasoline.

These basic economic differences will be pointed out to the children using the question and answer method.

Livestock on the Farm:

Today, most of our contact with animals is a master-pet relationship. To the homesteader, animals mean food and clothing with little room for emotional attachment for the livestock.

Farm animals contribute substantially to the economy of the homestead:

1. FOOD--The most basic need--meat, eggs, milk, and products including butter, cheese, and cream. These products may total up to 25% of food budgets when purchased today in supermarkets.
2. CLOTHING--From hides, pelts, and by shearing animals.
3. BEDDING--Down from chickens and geese used for pillows and mattresses.
4. INCOME--Selling or bartering eggs and milk.
5. FERTILIZERS--Manure is an excellent organic fertilizer.

BEST COPY AVAILABLE

Farm animals do not provide something for nothing. They require long, hard hours of time and attention. They require land for grazing, additional food which must be grown and water which often must be carried for a distance. Shelter and fencing must be constructed and maintained. There is also the initial cost of purchasing animals and special care and medicines for those sick or injured.

The Homestead Garden:

Meat and other animal products make up only a portion of a balanced diet. A variety of vegetables is necessary and the homestead garden fulfills this need.

A number of basic considerations must be fulfilled before a successful gardening project can be undertaken:

1. A cleared area without trees on or adjacent to the plot. Trees and shrubs would use sunlight and water needed by garden plants.

2. Good soil composition and adequate drainage. Soil deficient in mineral content must be replenished. The soil should neither be hard and caked when dry, nor gummy when damp.

3. Plans should be made well in advance for the number and types of vegetables wanted. Successive plantings should be made so that all vegetables will not ripen at the same time. Homesteaders canned or stored in the root cellar enough vegetables to sustain them through the winter. Today we have the added option of freezing our garden surplus.

4. Plans must be made to keep animals and insects away. A chicken wire fence will keep rabbits out and many organic gardening techniques can be applied to control insect pests without using chemicals that can harm the environment.

5. Mulching with compost, lawn cuttings, or other materials is a helpful technique. The mulch retains moisture reducing the need for supplemental watering, helps control weed growth, and can be plowed in at the end of the season to help enrich the soil.

6. Budget initial cost of tools, seeds, fertilizer, etc.

Two of the basic ideas of the homestead are self-sufficiency and a sense of oneness with nature. Few of us can or would even want to become homesteaders, but everyone who has even a little land around the house can garden and derive to some degree these almost lost old American feelings of self-sufficiency and unity with nature.

Our garden is an organic one because of our concern for the environment. Chemical fertilizer and insect poison might give us a larger crop yield with less work, but these chemicals washed into a nearby stream or pond may cause problems for our neighbors and for wildlife.

BEST COPY AVAILABLE

APPENDIX E

EVALUATION QUESTIONNAIRE FOR PARTICIPATING TEACHERS

EVALUATION QUESTIONNAIRE FOR PARTICIPANTS
IN
GRANT # 28-90-00-39-2

The Homestead Ecology Experience for
Special Education Students and Teachers

Name:_____ Dates Attended:_____

School:_____ Handicap Group:_____

I. Please answer these questions as objectively and succinctly as you can.

A. What activities did your class participate in?

B. Why were these activities worthwhile?

C. How could our activities be further adapted to suit your class?

D. What type of groups would you recommend this program to?

E. What advantages do you see in replicating this program with other groups of students?

F. Do you have any suggestions to make to our Naturalists in dealing with classes like yours?

G. What type of workshops would you be interested in attending?

H. On what basis do you evaluate the success or failure of the Brookville experience?

I. What were your objectives and how close did we come to fulfilling them?

J. Were there any activities you would like to concentrate on more? Are there any activities you would like to drop from your class' agenda?

If so, why?

II. PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER WHICH MOST APPROPRIATELY REFLECTS YOUR FEELINGS:

Not very much 1 2 3 4 5 very much
Somewhat

If there are any additional comments you wish to make, please feel free to include them in the space provided below each question.

A. Were the activities your class participated in relevant or helpful to your students?

1 2 3 4 5

Comments:_____

_____

B. Was the Brookville Homesteading Experience adaptable to your classroom studies and curriculum?

1 2 3 4 5

Comments:_____

_____

C. Did you have trouble with timing or buses?

1 2 3 4 5

Comments:_____

_____

D. Do you think you were adequately prepared for the trip?

1 2 3 4 5

Comments:_____

_____

E. How did your students enjoy themselves?

1 2 3 4 5

Comments:_____

_____

F. How useful were the in-service workshops?

1 2 3 4 5

Comments:_____

_____

G. Were the Naturalists prepared?

1 2 3 4 5

Comments:_____

_____

H. Were the in-service workshops useful?

1 2 3 4 5

Comments:_____

_____

I. How appropriate were the activities you participated in for your class?

1 2 3 4 5

Comments:_____

_____

J. What areas would you like more training in?

____ blacksmithing

____ broommaking

____ log cabin construction

____ nature and the nature trail

____ Project Adventure

____ pre- and post-trip materials and curriculum

____ other, please specify:_____

_____

_____

APPENDIX F

GRANT ABSTRACT

119

Project No. Title VI-B EHA Competitive FY '79 Grant No. 28-90-00-39-2

Dept. Use Only Div. Ed. Fin. Use Only

INSTRUCTIONS

Complete this form in pen or by typewriter. Submit the number of copies required by the appropriate program office directly to the program coordinator's office in the New York State Education Department, Albany, New York 12224.

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Division of Educational Finance
FEDERALLY AIDED PROGRAMS
Albany, New York 12210

PROPOSED BUDGET FOR THE
OPERATION OF A FEDERAL PROJECT
FA-10 (1/73)

Project Title THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS

Project Schedule: Beginning Date March 1, 1979 Ending Date September 30, 1980

Name of Agency Administering Project Board of Cooperative Educational Services (BOCES) of Nassau County

Mailing Address Salisbury Center, Valentines Road and The Plain Road, Westbury NY 11590 County Nassau

Chief Administrative Officer Dr. William T. Callahan Telephone No. (516) 997-8700

Project Director Mr. Norman Skliar Telephone No. (same)

GENERAL DIRECTIONS

NOTE: No Code 100 (Central Administration) is provided. The A-87 Indirect Cost rate must be used.

1. Actual indirect costs applicable to this project should be calculated on page 15, using approved rates, after all direct cost items have been entered.

2. Any increase in the number of and/or change in type of personnel items requires prior approval through a budget amendment. Also, consultant salaries over $100 per diem must be prior approved.

3. Any increase in the number and/or change in type of equipment items having a unit value of $50 or more (budgeted under category 1230) requires prior approval through a budget amendment.

4. All out-of-state travel must be itemized and any changes or additions to this category must be prior approved.

5. Any time a budget subtotal category (salaries, contracted services, travel) is increased by more than 10 percent prior approval must be obtained. However, prior approval is not required if the change does not increase the original budget subtotal by more than $500.

6. The total budget grant amount, however, may not be increased without prior approval.

Appropriate Federal Program Source of Funds

BEST COPY AVAILABLE

INSTRUCTION

210 Salaries for Professional Personnel: Salaries of the project director, assistant director, project evaluator, assistant principals or any other personnel performing the functions of supervisors of instruction, teachers, school librarian, or curriculum writer. For each supervisory position listed enclose two completed copies of Form PA-50, "Special Program Administrative and Supervisory Position Description." Do not include such indirect costs as Federal Aid Coordinator, Special Program Coordinator, or Director of State and Federal Relations.

Specific Position Title	Estimated Number Total	FTE	Project Salary
Program Coordinator	1	1	$20,000.00
Outdoor Education Staff	2	2 @$13,000.	26,000.00
	1	1 @$10,000.	10,000.00

Subtotal $ 56,000.00

BEST COPY AVAILABLE

215 Salaries for Nonprofessional Personnel: Salaries for teacher aide, secretarial and clerical assistance, and others in support of the professional personnel listed in item 210. Do not include salaries of staff assigned to the Federal Aid Coordinator's office or the staff assigned to any similar administrative office.

Specific Position Title	Estimated Number Total	FTE	Project Salary
Secretarial Services	1	2/5	$5,500.00

Subtotal $5,500.00 215

250.3 Contracted Services for Instruction or Project Evaluation: (includes consultant service)

Purpose of Expenditure	Per Diem Rate (if consultant)	Total Amt. of Contract
Consultants:		
Evaluative	(2) @$100.00 per day/Consultant x 10 days	$2,000.00
Instruction (to write pre- and post-curriculum materials)	(2) @$100.00 per day/Consultant x 10 days	$2,000.00

Subtotal $4,000.00 250

250.2 Travel Expenses for Instruction: For add'l space form PA-60 (TRIP DESCRIPTION) may be used.

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure
Program Coordinator	Brookville	Supervision	16 miles x 75 trips x $.15 per mile = $180.00

Subtotal $180.00 250.

Other Instructional Expenses

220 Textbooks - Textbooks furnished free to all pupils of one or more specific classes, grades, or schools

Subject Area	Quantity	Proposed Expenditures
		$ 220

BEST COPY AVAILABLE

230.1 School Library Resources: Library books, reference books, periodicals and newspapers for use in the school library or classroom.

	Quantity	Proposed Expenditure
a. School Library Books		$
b. Reference Books (other than textbooks)		$
c. Periodicals and Newspapers		$
		$ 230.

230.3 Audiovisual Materials (not equipment)

	Quantity	Proposed Expenditure
a.* Films, Strips, & Transparancies--Super 8mm. film/proc. 35 mm. film and developing for multi-media programs		$ 1,500.00
b. Tapes and Recordings		$
c. Maps, Charts, and Globes		$
d. TV and Radio Materials		$
*The slides and movie film will be used for training purposes as well as for a final documentation of this project.		$ 1,500.00 230.3

240 Other Miscellaneous Expenses for Instruction:
Includes teaching supplies and materials

	Quantity	Proposed Expenditure
a. Prog. Learning & Workbook Materials		$
b. Testing Supplies		$ 300.00
c. Classroom Supplies & Materials Printing of pre- and post-trip written materials related to the outdoor experience and designed to develop skills in science, math, social studies, art, music, and English.		$ 2,500.00
d. Misc. Supplies & Expenses (Instruction)		
Animals and Feed	$300	
Blacksmithing/steel, coal, oil, specialized tools	800	
Broommaking/sorgum corn, specialized tools	500	
Cabin Construction/specialized tools; i.e., froe, adz, drawknife	300	$ 3,500.00
Farming/hand tools, seed, saplings, planting materials	200	
Outdoor Cooking/Dutch ovens, utensils, specialized equipment	300	
Project Adventure/lumber and special items	1,100	$ 6,300.00 240
	$3,500	

Subtotal: Other Expenses (Sum of 220, 230.1, 230.3, 240) $ 9,800.00

BEST COPY AVAILABLE

260 STAFF DEVELOPMENT (Recruitment & Training)

260.1 Salaries or Stipends for Staff Development

Specific Position Title	Estimated Number Total	FTE	Project Salary
1. Teachers			
2. School Administrators			
3. Trainers of Teachers			
4. Pre-service Trainees			
5. Other (attach explanation)			

Subtotal $ _____ 260.1

260.4 Contracted Services for Staff Development: Includes consultant services

Purpose of Expenditure	Per Diem Rate (if consultant)	Total Amt. of Contract

Subtotal $ _____ 260.4

260.2 Travel for Staff Development

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure

Subtotal $ _____ 260.2

BEST COPY AVAILABLE

Other Expenses for Staff Development

250.5 Tuition for Staff Training

Name of Institution Where Trng. Conducted	No. of Trainees	Purpose of Program	Tuition Costs Indv.	Tuition Costs Total

$ [ ] 25

250.6 Inservice Education Expenses for Staff Training: Includes conferences

Purpose	No. of Participants	Rate of Charge	Estimated Cost

$ [ ] 25

250.7 Other Miscellaneous Cost

Description of Item	Quantity or Description	Proposed Expenditure
1. Rental of Equipment (attach explanation)		$
2. Other (attach explanation) Pre- and post-training testing Craft Materials (see section 240 ("Miscellaneous Supplies and Expenses") Duplication of slides and printed materials Postage		$ 600.00

25

Subtotal: Other Staff Development Costs (Sum of 250.5, 250.6, 250.7) $

BEST COPY AVAILABLE

300 GUIDANCE AND ATTENDANCE SERVICES

310 Salaries for Guidance and Attendance Services: (a) payroll services for Guidance officers, school psychologist and directors, attendance officers, visiting teachers, and school social workers (b) payroll services for secretarial and clerical assistances to any of the aforementioned personnel.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Professional Salaries Subtotal $ _____

Nonprofessional Salaries Subtotal $ _____

Total Guidance & Attendance Salaries $ _____ 310

320.4 Contracted Services: includes consultant service

Purpose of Expenditure	Per Diem Rate (if consultant)	Total Amt. of Contract

Subtotal $ _____ 320.4

320.2 Travel Expenses for Guidance and Attendance Services

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure

Subtotal $ _____ 320.2

320.3 Other Expenses for Guidance and Attendance Services

Description of Item	Quantity	Proposed Expenditure

Subtotal $ _____ 320.3

BEST COPY AVAILABLE

400 HEALTH SERVICES

410 Salaries for Health Services - Payroll salaries for health services of (a) schoo physicians including psychiatrists (b) school dentists (c) school nurses (d) sc secretarial and clerical assistants and attendants.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $_____ 410

420.4 Contracted Services

Purpose of Expenditure	Per Diem Rate	Total Amt. of Contract

Subtotal $_____ 420.

420.2 Travel Expenses for Health Services

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure

Subtotal $_____ 420.

420.3 Other Expenses for Health Services - Supplies for health services and miscellaneou expenses for health services including payments made on a fee or contracted-servi basis.

Description of Item	Quantity	Proposed Expenditure

Subtotal $_____ 420.

BEST COPY AVAILABLE

500 PUPIL TRANSPORTATION SERVICES

510 Salaries for Pupil Transportation Services: Payroll salaries of pupil transportation personnel whose services would be directly attributable to the proposed project.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $ _____ 510

520 Contracted Services and Pupil Carriers: (a) Contract expenditures to owners who operate vehicles to transport pupils, (b) expenditures to parents for transporting children, (c) expenditures for transportation on public carrier vehicles being used by the general public regardless of whether payments are to pupils or carriers, and (d) any travel allowances paid to pupils.

Description of Item	Proposed Expenditure
Bus subsidy: from participating schools to Brookville (round trip)	$4,000.00

Subtotal $ 4,000.00 520

560 Other Expenses for Pupil Transportation - Includes gas, oil, insurance, and maintenance to be reimbursed at 11¢ per mile.

Number of Miles (1)	Rate @ 11¢/mile (2)	Proposed Expenditure (1 x 2)

128

Subtotal $ _____ 560

BEST COPY AVAILABLE

600 OPERATION OF PLANT

610 Salaries for Operation and Maintenance of Plant: Payroll salaries of personnel directly engaged in keeping the physical plant open and ready for use under this project.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $ _____ 6

660 Other Expenses for Operation of Plant: (a) Contracted services for operation of plant and (b) heat and other utilities for operation of plant.

In reference to heat, light, or water, any proposed expenditures must be directly identifiable with and attributable to this special project. If a facility proposed for use in this project is to be used solely as a special project center and more than one special project or program is to be conducted therein, the proposed expenditures for heat, light, and water relevant to this project must correspond to an equitable determined proration of total expenditures for the utilities.

If the facility is not a separate special project facility, anticipated expenditures for heat, light, and water are allowable only if this project is to be operated at a time when no other educational program or other activity is to be in operation. In such an instance, proposed expenditures for heat, light and water should be determined as follows:

$$\frac{\text{No. of hours per week this proposed special project is anticipated to be in operation*}}{\text{Total gross no. of hours per week all other programs or activities are anticipated to be in operation in facility}} \times \text{Anticipated expenditure for provision of heat, light, and water during the project period}$$

*NOTE: Include only those hours of week in which no other activity operated in building.

Description of Item	Proposed Expenditure

BEST COPY AVAILABLE

700 MAINTENANCE OF PLANT

710 Salaries for Maintenance of Plant: Salaries of personnel directly engaged in maintenance activities such as carpentry, painting, plumbing, electrical work, maintenance of grounds, etc., under this program.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $ _____ 710

740 Other Expenses for Maintenance of Plant: (a) Contracted services for maintenance of plant. (b) replacements of equipment, and (c) miscellaneous expenses, including those for supplies, for maintenance of plant.

Description of Item	Proposed Expenditure

Subtotal $ _____ 740

810 EMPLOYER CONTRIBUTION FOR EMPLOYEE BENEFITS

(See appropriate issue of School Financial Aid Bulletin or contact Federally Aided Programs Office for specific rates to be used for this Federal Project)

Item		Proposed Expenditure
1. Social Security	6.09% of $20,000; $26,000; and $5,500	$ 4,745.00
2. Retirement	21% of $20,000 and $26,000	11,900.00
3. Health Insurance	3 x $800	3,200.00
4. Workmens Compensation Insurance	.58% of $20,000 and $26,000	317.80

Subtotal $ 20,162.80 810

BEST COPY AVAILABLE

830 RENTAL OF LAND AND BUILDINGS

Such rented building space used to house children must be approved by the Division of Educational Facilities Planning.

Description of Item	Proposed Expenditure

Subtotal $ _____ 830

900 FOOD SERVICES

910 Salaries for Food Services: Payroll salaries for food services as relevant to those personnel whose purpose is the preparation and serving of meals or snacks in connection with project activities.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $ _____ 10

920.4 Contracted Services

Purpose of Expenditure	Per Diem Rate	Total Amt. of Contract

Subtotal $ _____ 920.

920.2 Travel

Purpose of Travel	Destination	Proposed Expenditure

Subtotal $ _____ 920.

920.3 Other Expenses for Food Services: (Does not include equipment)

NOTE: COSTS ELIGIBLE FOR REIMBURSEMENT UNDER SCHOOL NUTRITION PROGRAMS WILL NOT BE REIMBURSED UNDER THIS PROJECT.

Description of Item	Proposed Expenditure

BEST COPY AVAILABLE

BEST COPY AVAILABLE

1000 COCURRICULAR ACTIVITIES

Cocurricular Activities: Interscholastic activities, entertainments, publications, clubs, bands and orchestra, or activities operated by the student body under the guidance and direction of adults.

1010 Salaries for Cocurricular Activities - Payroll salaries of personnel engaged in student body activities.

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $_____ 1010

1020.2 Travel Expenses for Cocurricular Activities

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure

Subtotal $_____ 1020.2

1020.3 Other Expenses for Cocurricular Activities - Supplies, contract services, and miscellaneous expenses for student body activities.

Description of Item	Quantity	Proposed Expenditure

Subtotal $_____ 1020.3

BEST COPY AVAILABLE

1100 COMMUNITY - HOME RELATIONS

1100 Salaries for Community - Home Relations

Specific Position Title	Estimated Number Total	FTE	Project Salary

Subtotal $_____

1100.2 Travel Expenses for Community - Home Relations

Position of Traveler	Destination of Traveler	Purpose	Proposed Expenditure

Subtotal $_____

1100.3 Other Expenses for Community - Home Services - Supplies, materials, contracted services, and miscellaneous expenses.

Description of Item	Proposed Expenditure

Subtotal $_____

BEST COPY AVAILABLE

CALCULATION OF INDIRECT COST

(All Programs)

A. Direct Cost Base (sum of budget items 210 through 1100.3): $_____ (A)

B. Approved Indirect Cost Rate (use rate for restricted programs as determined on Form FA-87-R) _____ (B)

C. (A) X (B) or Total Indirect Cost Dollar Amount $_____ (C)

NOTE: The total indirect cost should be entered in the budget summary on page 18.

1220.3 MINOR REMODELING

Pertinent here are expenditures for minor structural alterations and the initial or additional installation of heating and ventilating systems, electrical systems, plumbing systems, fire protection systems, and other systems in existing buildings. Minor remodeling usually takes place within the existing floor area. Repairs and replacement of service systems should be budgeted in the 700 Series. Building additions are not to be included here.

The gross claim for minor remodeling may not exceed $2,000 per room.

Description of Item	Proposed Expenditure

134

Subtotal $_____ 1220.

BEST COPY AVAILABLE

1230 EQUIPMENT

Initial or additional items of equipment, such as furniture, furnishings, mach ar and vehicles that are not integral parts of the building or building service. Repairs and piece-for-piece replacements of equipment are not pertinent here: these pertain instead to the 700 Series, Maintenance of Plant.

Any and all equipment purchased in support of this project with a unit cost of $50 or more should be itemized in this category.

Item	Proposed Quantity	Unit Cost	Proposed Expenditure

Subtotal $_____ 123

BEST COPY AVAILABLE

PROJECT OPERATIONAL BUDGET SUMMARY

ACTIVITY	CODE	SALARIES		CONTRACT		
		PROFESSIONAL	NON PROF.	SVC. *	TRAVEL	OTHER
INSTRUCTION	200	56,000.00	5,500.00	9,800.00	180.00	
STAFF DEVELOPMENT	260					600.
GUIDANCE & ATTENDANCE	300					
HEALTH SERVICES	400					
PUPIL TRANS.	500	XXXX		4,000.00	XXXX	
OPERATION OF PLANT	600	XXXX		XXXX	XXXX	
MAINTENANCE OF PLANT	700	XXXX		XXXX	XXXX	
EMPLOYEE BENEFITS	810	XXXX	XXXX	XXXX	XXXX	20,162.
RENTAL OF BUILDINGS	830	XXXX	XXXX		XXXX	XXXX
FOOD SERVICES	900					
COCURRICULAR ACTIV.	1000					
COMMUNITY - HOME REL.	1100					
DIRECT COST	--	XXXX	XXXX	XXXX	XXXX	
MINOR REMODELING	1220.3	XXXX	XXXX	XXXX	XXXX	
EQUIPMENT	1230	XXXX	XXXX	XXXX	XXXX	
TOTALS		$ 56,000.00	$ 5,500.00	$ 13,800.00	$ 180.00	$ 20,762.

GRAND TOTAL $ 96,242.80

CHIEF SCHOOL ADMINISTRATOR'S CERTIFICATION

I hereby certify that the requested budget amounts are necessary and appropriate to the implementation of this project. I hereby certify that the Assurance of Compliance with Title VI of the Civil Rights Act dated July 2, 1964 (month day year) applies to the application submitted herewith.

A first advance payment of 25 percent is hereby requested.

Date December 6, 1978 Signed _____
Chief Administrative Officer

Dept. Use Only:

Project No.: _____ Grant No.: _____

UAN: _____ LEA No.: _____

BEST COPY AVAILABLE

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY, NEW YORK 12234

ASSISTANT COMMISSIONER FOR
EDUCATION OF CHILDREN
WITH HANDICAPPING CONDITIONS

DIVISION OF DEVELOPMENT SUPPORT SERVICES,
EDUCATION OF HANDICAPPED CHILDREN

ASSURANCES 28-90-00-39-2

1. The applicant assures the SED that they will not be reimbursed from any State, local, or other federal funds for any components of this project funded under Part B, EHA.

2. The district assures the SED that the funds received under this application will not displace any State or local funds for any particular cost.

3. The applicant assures the SED that it will adhere to all federal and State regulations regarding the education of handicapped children, including the final regulations of PL94-142 and the Regulations of the Commissioner of New York State.

4. The applicant assures the SED that all evaluation procedures and materials will be selected and administered so as not to be racially or culturally discriminating.

5. The applicant assures the SED that all records related to this program will be maintained and readily accessible to staff representatives of the SED. In addition, all appropriate data will be aggregated and reported to the SED on request.

6. The applicant assures the SED that all services, materials, and equipment funded under this program will be under the direct supervision of the applicant; that assignments of personnel and documentation of expenses will be readily available to audit.

7. The applicant assures the SED that, in compliance with Title 45 of the Code of Federal Regulations Part 84, and Section 504 of the Vocational Rehabilitation Act of 1973, it will make positive efforts to employ and advance qualified handicapped individuals in the project described in this application.

8. The applicant assures the SED that all the activities conducted under this application will be carried out on a non-discriminatory basis in compliance with Title VI of the Civil Rights Act.

We hereby certify to the above assurances for the Board of Cooperative Educational
(Name of Local)
Services of Nassau County School District.
(Educational Agency)

(Over)

SCHOOL BOARD'S CERTIFICATION

Richard L. Ornauer

Signature of President of Board of Education

Richard L. Ornauer

Typed Name of President of Board of Education

2-14-79

Date

CHIEF SCHOOL OFFICER'S CERTIFICATION

William T. Callahan

Signature of Chief School Officer

William T. Callahan

Typed Name of Chief School Officer

2/14/79

Date

THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS

Brief Abstract

This project provides for three staff people, working out of the Nassau County BOCES Office of Outdoor and Environmental Education, who will provide a comprehensive outdoor education program for the 2, 500 special education students and their teachers in Nassau County. As a replicable program it can serve as a model for other facilities and agencies seeking to provide for substantive educational change involving the extension of the learning environment for special education students.

Utilizing the existing BOCES resources and the Brookville Outdoor and Environmental Education Homestead Center, this project will make it possible for special education students to participate in unique outdoor experiences not available through the regular school program. Three major components of this project are as follows:

1. active student participation in activity-oriented interdisciplinary Homestead Ecology Program;
2. the development and use of multi-media special education/homestead ecology curriculum materials; and
3. in-service training of special education teachers in outdoor education/homestead ecology.

This three-pronged approach will make it possible for outdoor education to become a valued teaching technique in the special education setting.

TABLE OF CONTENTS

BRIEF ABSTRACT .....

NEEDS AND POPULATION BEING SERVED 1

STUDENT OBJECTIVES 2

SPECIAL EDUCATION TEACHER OBJECTIVES 3

PROJECT STAFF OBJECTIVES 4

RESOURCES 5

PROGRAM DESCRIPTION 6

STAFF 7

MATERIALS 7

EVALUATION PLAN 8

Student Evaluation 8

Teacher Evaluation 9

Project Staff Evaluation 10

APPENDIX A: Site Map 11

Needs and Population Being Served

Outdoor education techniques utilize multi-sensory experiences in an unrestricted natural environment to stimulate curiosity, learning, and appreciation of the world to which we all belong. The 2,500 special education students of Nassau County have limited opportunities to broaden their awareness of the interrelationships between themselves, their community, and the natural environment. At the same time, many of the 250 teachers of these special education students are unqware of the educational value of outdoor education techniques.

The participation of special education students and teachers in our present on-going program have demonstrated the value of outdoor learning experiences. As part of a pilot program with the Nassau County BOCES Cerebral Palsy School, teachers completed a program evaluation after their class had participated in a Homestead Ecology Program. These evaluations indicated that the specific outdoor experience was valuable for their students. However, they also indicated that such experiences had the potential to be far more valuable if the program goals were extended through the use of specific curriculum materials and pre-trip and follow-up activities. In addition, they indicated that they would be receptive to in-service training which would give them the tools to integrate and extend these experiences.

To respond to this demonstrated need, this project is designed to enhance the school-based special education program through the development of a comprehensive outdoor education program. The project will include:

1. active participation in an activity-oriented inter-disciplinary Homestead Ecology Program;

2. the development and use of specific special education curriculum materials; and

3. in-service training of special education teachers.

Such a three-pronged approach will make it possible for outdoor education to become a valued teaching technique in the special education setting.

It should be strongly noted that this multi-faceted and replicable program can serve as a model for a large number of other facilities which seek to extend the learning environment of special education students. The curriculum materials which will be developed could be made available to other agencies and administrators. Personal visitations by staff from other facilities will be welcomed.

Student Objectives

Hands-on learning experiences are necessary to permit students, especially the handicapped, to make the kinds of associations needed to learn about the natural world. At the Brookville Homestead site, the student can use all of his/her senses to experience the variety of nature and the homesteader's direct dependence on this natural environment.

Through the students'

a. pre-trip preparation in the classroom,

b. active participation in early American crafts (blacksmithing, broommaking, pioneer construction, and outdoor cooking),

problem-solving activities, farm and animal care, and multi-sensory exploration of the natural environment, and

c. post-trip activities in the classroom,

we have the following objectives:

1. to stimulate the development of the students' cognitive skills such as a) sequencing, b) time concepts, c) following directions, d) classification, e) written and verbal expression, f) association, and g) measurement. Success will be measured by comparing pre- and post-test scores;

2. to develop student self-confidence through successful completion of craft items, problem solving games, and learning activities related to homestead ecology;

3. to enhance student self-awareness of their relation to the surrounding environment through participation in sensory awareness activities in natural areas and historical settings;

4. to develop large and fine motor skills through participation in pioneer crafts, Project Adventure activities, and the nature trail learning stations which require manipulations of concrete materials and whole body movement;

5. to develop socializations skills through group work on crafts and problem solving activities; and

6. to develop communication skills through role playing, discussion, creative writing which can be evoked by this natural and historical setting.

Special Education Teacher Objectives

In-service training in outdoor education/homestead ecology will be provided to accomplish the following objectives:

1. to develop increased awareness of the relationship between classroom curriculum and outdoor and environmental education;

2. to recognize the motivational value and learning potential of the outdoor environment;

3. to successfully utilize outdoor education/homestead ecology curriculum materials to achieve the educational goals of their on-going school program; and

4. to demonstrate an understanding of and confidence in outdoor and environmental education techniques through successful utilization of those techniques in their teaching.

Project Staff Objectives

1. To work cooperatively with special education teachers and administrators to define specific needs, determine the most appropriate learning approaches, and set up teacher in-service training;

2. to provide a wide range of activity oriented homestead ecology programs for special education classes which will include a) blacksmithing, b) pioneer construction, c) outdoor cooking, d) broommaking, e) nature trail activities, f) Project Adventure activities, and g) farm and small animal care;

3. to produce multi-media curriculum materials for special education students and teachers which provide:

   a. background information on homestead ecology and related topics,

   b. pre- and post-trip suggestions for integration of the field experience into the total curriculum, and

   c. related interdisciplinary activities;

4. to provide in-service training in outdoor education at the Homestead site for teachers.

Resources

The Brookville Outdoor and Environmental Education Homestead Center of some 40 acres is a unique local site which has been developed to replicate many aspects of an original Long Island homestead. As such, it is a stimulating and diverse environment where our Homestead Ecology Program is now offered. Although still under development, this site has many existing structures and features such as a log cabin, blacksmith shop, visitors' center, nature trail (developed to be accessible to the handicapped), Project Adventure area, farm and garden area, model orchard, and small animal area. This project will utilize these facilities to meet its objectives. (Please see enclosed site map.)

This project will also utilize the available resources of the Nassau County BOCES and its Office of Outdoor and Environmental Education in its implementation with component school districts in Nassau County. Already in existence is a complete procedure which allows for a) cooperative planning between the classroom teacher and the BOCES outdoor educators for the outdoor experience, b) dissemination of pre- and post-trip materials related to the program selections, and c) collection of evaluation materials from students and teachers. We also would be able to utilize the various support systems such as the graphics department, mail service, and research and development, that are now a part of Nassau BOCES. Another advantage is the close working relationship between the Office of Outdoor and Environmental Education and the Nassau BOCES Division of Special Education.

Program Description

At the beginning of the project, a pre-test of cognitive skills will be administered by the teacher to his/her class. Then, utilizing pre-trip curriculum materials, the teacher will prepare the class for the Homestead Ecology Program.

Once transported to the site, students will be actively involved in early American craft activities, maintenance of farm and garden, caring for small animals, and the study of the natural environment as it related to the early homesteaders.

Back at the school site, follow-up activities to reinforce student learnings and aid the students in making associations will be provided by the teacher with the help of curriculum materials prepared for this purpose. Finally, a post-test inventory will be administered.

The project staff will work closely with special education teachers and administrators in order to determine the specific needs of teachers and students, the most appropriate learning approaches, and the special emphasis of each field experience.

The project staff will all be responsible for the development and production of specific curriculum materials and teacher in-service training needed to integrate these field experiences into the on-going curriculum. Another outcome of the teacher in-service training will be encouragement and support for the use of the outdoor environment for learning purposes beyond these initial project-related experiences.

Staff

Two outdoor educators will be employed to direct student Homestead Ecology Programs at the Brookville site. They, along with the project coordinator, will be involved in the teacher in-service training. These staff members will have educational and experiential backgrounds which demonstrate a high level of ability in both special education and outdoor education.

The project coordinator will:

1. develop the needed curriculum materials for the project;
2. organize and lead the teacher in-service training; and
3. continually administrate and monitor all aspects of the project and its evaluation.

The project coordinator will have an outdoor education/special education background as well as administrative experience.

Mr. Norman Skliar, Administrator of the Office of Outdoor and Environmental Education, Board of Cooperative Educational Services (BOCES) of Nassau County, will monitor project activities and will communicate project status at regularly scheduled divisional meetings. As the head administrator of this office he will ultimately be accountable for the implementation of this program.

Materials

Curriculum materials related to outdoor learning and homestead ecology will be produced for use by special education students and teachers.

They will include background information, pre-trip and post-trip activities for the classroom and school site, vocabulary lists, reference lists, and related interdisciplinary activities. Some of these materials will take a multi-media format. Utilizing slide-tape presentations, study prints (picture placards accompanied by descriptive text), and other media, several methods for the presentation of material will be available for use by students and teachers.

The raw materials needed for student and teacher participation in the Homestead Ecology Program will also be provided. They will include craft materials (broomcorn, blacksmithing iron, coal, wood, cooking supplies), animal feed, farm materials (seed, lime, etc.), and other basic materials (paper, pencils, glue, magnifying lenses, etc.).

Evaluation Plan

The proposed on-going evaluation plan will be divided into three parts, relating to the three sets of objectives. Thus, the three evaluation sections will be: 1) special education students, 2) special education teachers, and 3) project staff. The success of each of these three components will reflect the effectiveness of the program.

Student Evaluation

Attainment of students' cognitive skills will be measured by comparing pre- and post-test scores. If possible, tests will be chosen from those commercially available. In the event that appropriate commercial tests do not exist, the project staff will develop its own.

Attainment of students' affective skills will be measured by instruments such as observation checklists, attitude scales, and teacher records. Some of these skills and instruments are amenable for pre- and post-basis comparisons. Some will be measured on an on-going basis, while others will be measured only once. The use of video tapes and analyses of their contents is also contemplated for measuring the attainment of affective skills.

Attainment of motor skills will be measured by instruments such as observation checklists and teacher records. The use and analyses of video tapes is also contemplated for measurement of these skills.

Appropriate tests of statistical significance will be chosen as the nature of the data becomes concrete with the program implementation.

Teacher Evaluation

Attainment of special education teacher objectives will be measured in several ways. Records of teachers' attendance to programmatic activities will be maintained. This will be a measure of teacher interest in the program. The project will develop an attitude scale toward outdoor and environmental education. This scale will be used on a pre- and post-trip basis to measure the program's impact on teachers' attitudes.

A questionnaire will be developed to measure utilization of outdoor education/homestead ecology curriculum. In this questionnaire, teachers' comments on the success/failure of utilization of the learned environmental education teaching techniques will be recorded.

Project Staff Evaluation

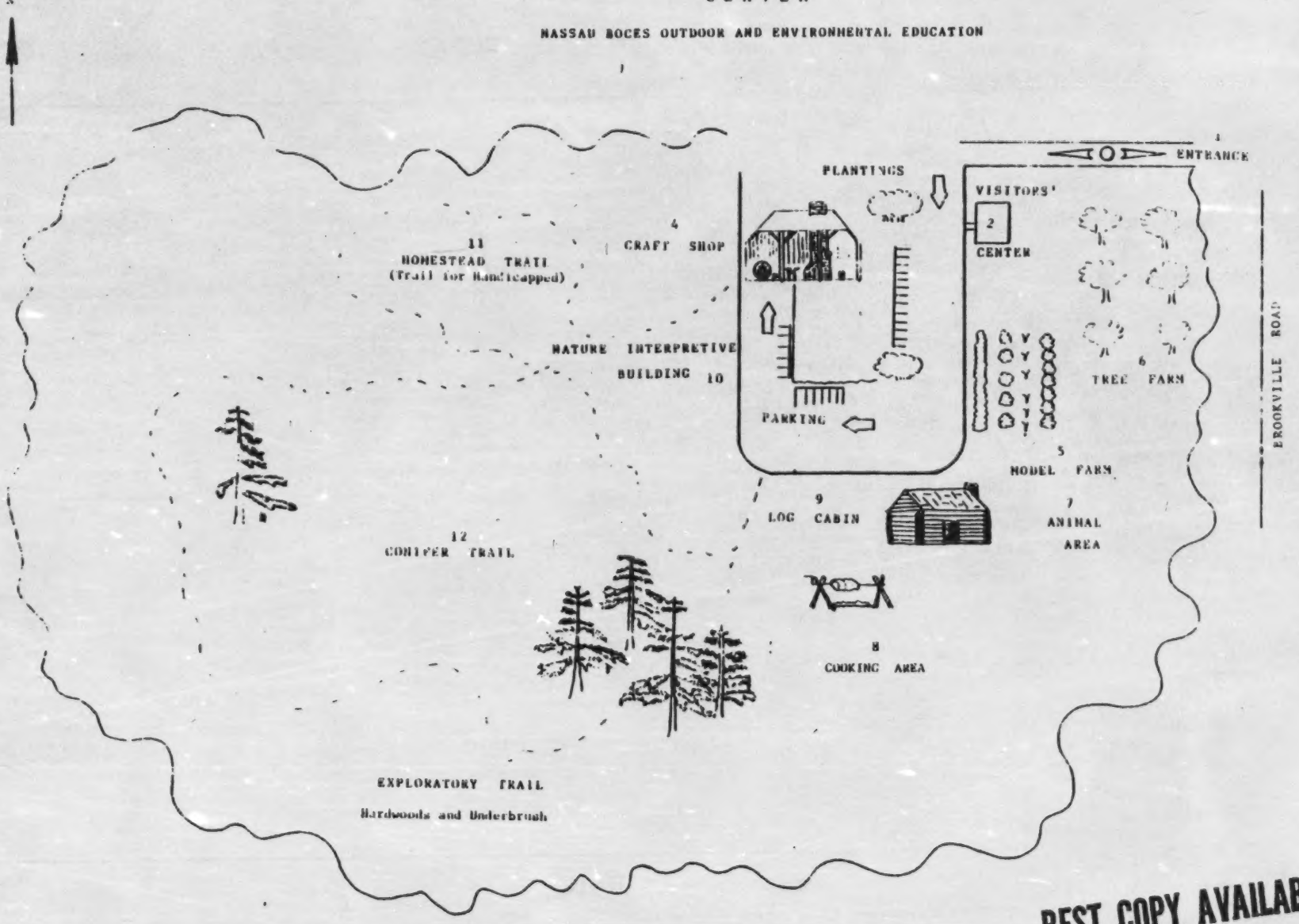
Attainment of project staff objectives will be measured in two ways. Records of meetings, workshops, and classes will be maintained. Specific information to be gathered from these records will be determined before program implementation.

The development of multi-media curriculum materials for special education teachers and students will be the second measurement for these objectives.

Specific criteria for all the above mentioned evaluation components will be determined before program implementation.

BROOKVILLE ENVIRONMENTAL CENTER

NASSAU BOCES OUTDOOR AND ENVIRONMENTAL EDUCATION

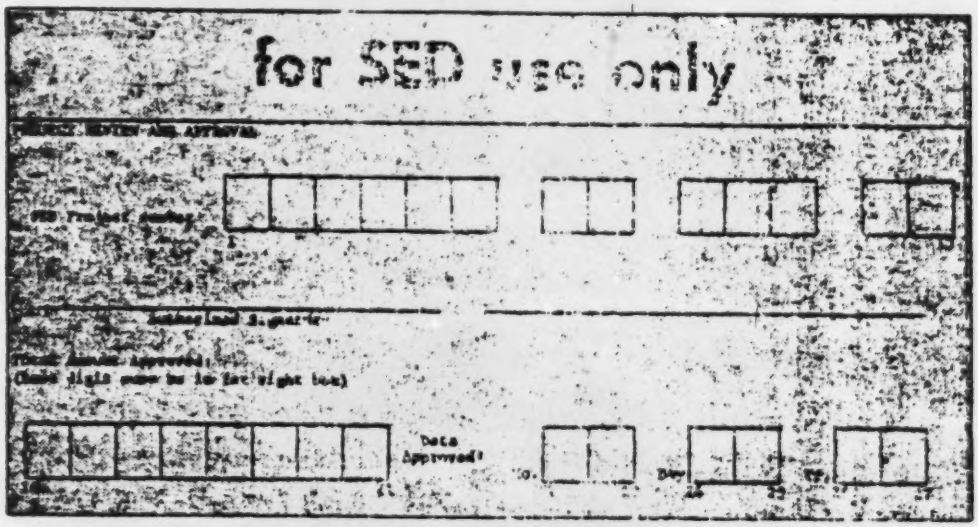


BEST COPY AVAILABLE

BEST COPY AVAILABLE

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Office for the Education of Children with Handicapping Conditions
Bureau for Special Program Review
Federal Aid Unit
55 Elk Street
Albany, New York 12234

Basic Project Identification Data ESEA Title VI B Handicapped (PL 94-142) or ESEA Title I-Handicapped (PL-89-313)

1. 

SED Project Number 28-90-00-39-2

PLEASE COMPLETE ALL ITEMS BELOW

2. Project Title THE HOMESTEAD ECOLOGY EXPERIENCE FOR SPECIAL EDUCATION STUDENTS AND TEACHERS

3.
1. Educational Agency ~~Board of Cooperative Educational~~ Services of Nassau County — Congressional District(s) # 6
2. Name of Chief School Officer Dr. William T. Callahan
3. Address ~~Salisbury Center,~~ Valentines Road & The Plain Road, Westbury, NY/Nassau
Street City Zip 11590 County

6.
Director and/or Coordinator of Project or Contact Person
1. Name Mr. Norman Skliar Title Associate Administrator
2. Address ~~Nassau BOCES Salisbury Center,~~ Valentines Rd., Westbury 11590 Phone (516) 997-8700, ext. 264
Street City Zip Area Code Number Ext.

5. Indicate the type of agency receiving the Grant. (Check one box only).

[ ] 28 Public School District	[X] 29 BOCES	[ ] 30 Nonpublic School
[ ] 31 College or University	[ ] 32 Education Department	[ ] 33 Department of Mental Hygiene
[ ] 34 Division for Youth	[ ] 35 Department of Corrections	[ ] 36 Department of Health
	[ ] 37 Private/Nonprofit Organization	[ ] 38 Other

79 80

BEST COPY AVAILABLE

6. Beginning Date of Project: 0 3 0 1 7 9 (14 Mo. 15 16 Day 17 18 Yr. 19) Ending Date of Project: 0 9 3 0 8 0 (20 Mo. 21 22 Day 23 24 Yr. 25)

7. Total Federal Funds applied for in Proposed Budget (Total Project Budget). (Last digit must be in far right box). $ 9 6 2 4 2.8 0 (26 11)

8. If no Direct Services are involved in this project indicate the type of project below. (Check (✓) as many boxes as applicable).

[X] 34 Managerial and/or Administrative Budget	[X] 35 Inservice Education	[ ] 36 Search and Find
[ ] 37 System (i.e., SEIMC, NYSCC)	[X] 38 Curriculum Development	[X] 39 Planning
[X] 40 Materials and Equipment	[X] 41 Evaluation	[ ] 42 Guidance and Counseling
	[ ] 43 Research and Development	[X] 44 Other

9. Indicate the year in which a needs assessment was completed for this project. 1 9 7 8 (45 46)

10. Is this a cooperative project with another Educational Agency? (Check one box only) [ ] 49 Yes [X] 50 No

11. Indicate the number of [illegible] colleges). (Last digit must be in far right box) 1 (51 52)

12. Estimated Number of Students to be served in this project. (Direct services only, i.e., excluding any possible participants receiving services listed in Item 9 above). (Last digit must be in far right box). Each student involved in approximately six (6) day programs. 4 0 0 (54 58)

13. Estimated unduplicated Number of Professional Staff (include Full- and Part-Time Personnel) to be funded under this project. (Last digit must be in far right box). 4 (59 63)

14. Maintenance of Fiscal Effort (Per Handicapped Pupil Expenditure in Agency - Indicate to nearest whole dollar).

FY 1977 $ 6 7 4 0 (64 67) FY 1978 $ 7 2 7 9 (68 71)

(0 2) (78 80)

BEST COPY AVAILABLE

BEST COPY AVAILABLE

15. NUMBER OF CHILDREN, STAFF AND STAFF RECEIVING INSERVICE TRAINING--450

A. Children Participating

Age	Trainable Mentally Retarded	Educable Mentally Retarded	Specific Learning Disabled	Emotionally Disturbed	Physically Handicapped (Orthopedic)	Other Physically Handicapped	Visually Handicapped: Totally Blind	Visually Handicapped: Part. Sighted	Deaf	Hard of Hearing	Deaf & Blind	Speech Impaired: Severely Sp. Impaired	Speech Impaired: Other Sp. Impaired	Total	
01. 0-2 Yr.															04
02. 3-5 Yr.														30	04
03. 6-17 Yr.														350	04
04. 18-20 Yr.														20	04
05. Total (Sum lines 1-4)														400	04

B. Staff

Type of Personnel	Number of Project Personnel Paid by Federal Project Funds by Type of Handicap Served														
01. Teacher															05
02. Teacher Aides															05
03. Other Personnel														4	05
04. Total (Sum lines 1-4)														4	05

C. Inservice Training

Type of Personnel	Number of Personnel Receiving Training from Project Funds by Type of Handicap Served														
01. Teacher														50	06
02. Teacher Aides															06
03. Other Personnel															06
04. Total (Sum lines 1-4)														50	06

16. INDICATE THOSE CHILDREN IN ITEM A ABOVE, WHO FALL INTO ANY OF THE CATEGORIES LISTED BELOW

Children Age 6 and over in Preschool Activity	Students in Voc-Ed. Activity	Severely Handicapped Children	Children from Low-Income Families	Children Enrolled in Nonpublic Schools	[redacted]	Additional Children Receiving Only Incidental Services (Indirect)	[redacted]	American Indian or Alaskan Native Children	Black Children (not of Hispanic Origin)	Asian or Pacific Island Children	Hispanic Children	[redacted]	Parents Receiving Direct Services	
		300	50						25	10	15			07

Incomplete, pending district meetings--will be sent shortly.

THE STATE EDUCATION DEPARTMENT

ASSISTANT COMMISSIONER FOR EDUCATION OF CHILDREN WITH HANDICAPPING CONDITIONS

DIVISION OF DEVELOPMENT SUPPORTIVE SERVICES FOR EDUCATION OF HANDICAPPED CHILDREN

(518) 474-3917

DATE: February 27, 1979

TO: Mr. Norman Skliar, Project Director

FROM: Elsie Finkelstein, Administrator, Bureau for Special Program Review

SUBJECT: Action of Project Under Title VI-B EHA Competitive FY '79

Name of School or Institution Nassau County BOCES

The Project The Homestead Ecology Experience for Special Education Students and Teachers

Approved Amount $ 96,242 Project No. 28-90-00-39-2 has been reviewed and acted upon as indicated below.

ELF

A. Final Approval Granted xxxxxxxxxxxxxxx February 26, 1979 DATE

B. Approved with the following recommendations: _____ _____ DATE

C. Disapproved _____ _____ DATE

You may be requested to supply additional information concerning the evaluative techniques to be utilized by you in measuring the attainment of project objectives. We are indicating our approval of your project at this time, however, so that program activities may be started as early as possible in the school year.

Please note that the initial payment will be sent to you directly from the Division of Educational Finance within four to five weeks after you receive this approval sheet. Also please note the policy of the Division of Educational Finance regarding final reports and future funding.

cc: John Curley, Fin.
Leo Doherty, Eval.
Dr. Callahan, CAO
Region 5 Office

"Policy of the Division of Educational Finance. It must be clearly understood that the final reports for this project must be submitted within one year of the close of the project. Failure to submit these reports on time will result in a 'freeze' being placed on all funds which flow to your institution through the Division of Educational Finance, Federal Aid Section. It is most important that we receive your cooperation in order to avoid the loss of federal funds."

Any inquiries concerning payments on approved projects should be made directly to the Division of Educational Finance. Telephone No. (518) 474-3917.

BEST COPY AVAILABLE

APPENDIX G

PRE- AND POST-TRIP ACTIVITIES

BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Division of General Services
Office of Outdoor and Environmental Education

THE HOMESTEAD ECOLOGY EXPERIENCE

PRE- AND POST-TRIP ACTIVITIES

159

BOCES Environmental Education Center at Brookville
Brookville, New York

BEST COPY AVAILABLE

INTRODUCTION

THE HOMESTEAD ECOLOGY EXPERIENCE
PRE- AND POST-TRIP ACTIVITIES

The Homestead Ecology Experience can be a significant part of the classroom curriculum when a variety of pre- and post-trip educational techniques are utilized.

This collection of activities, for use in the classroom and at local resource areas, has been designed to help you incorporate the field experience into the ongoing school program. For maximum effectiveness, it is recommended that teachers modify or expand upon activities to meet their class' needs and interests.

Office of Outdoor and Environmenta Education
Mr. Norman Skliar, Administrator

BEST COPY AVAILABLE

FOLLOWING DIRECTIONS

Prior to the outdoor cooking program at the Brookville site, prepare starter dough for sour dough biscuits. (If it is on the Menu for the day !)

Using natural objects, follow step-by-step directions to create craft items. For example, make pine cone creatures, rock creatures, mobiles, rubbings, etc.

Using Lincoln Logs, build a mini log cabin.

Explore the school grounds or local park to find a "natural wonder." Write simple directions for the class to follow to locate the object OR draw a map on which the "natural wonder" is marked.

Play "Simon Sez" with a student leader, bending and stretching the muscles that will be used in Project Adventure activities.

Have students sit in twos, back to back. One student holds a natural object which he must describe to his partner. The partner draws the object, based on the description.

Consult the New Games Book (New Games Foundation, P.O. Box 7901, San Francisco, California 94120) for activities involving following directions, challenge, and group cooperation.

ASSOCIATION

Identify items in the classroom that were made from trees.

Locate evidence of animal life such as homes, tracks, pellets, scat, feathers, and fur. Match the evidence with the corresponding animal.

Bury articles made of metal, wood, paper, and plastic. One year later (flexible) unearth the articles, note changes and draw conclusions.

Visit local farms. Identify local crops and discuss how local and "imported" produce reaches the supermarket. How did the homesteaders obtain the same produce? What jobs have been created through our system of produce distribution?

Identify the parts of the broomcorn and corn that are used for eating, making cornhusk dolls, mattress filler, popcorn, etc.

BEST COPY AVAILABLE

CLASSIFICATION

Classify collections of seeds, rocks, etc. in styrofoam egg cartons according to size, color, shape, texture, etc.

List items eaten for breakfast, lunch, and dinner. Do the same for a Homesteader and classify into plant and animal groups. Compare lists.

Have students sit in a circle with brooms in hand. Collect the brooms after the students have had the opportunity to observe and "memorize" the characteristics of their personal brooms. Place all the brooms, plus extras if available, in the center of the circle. Have each student locate his/her broom and tell the group how he was able to identify it among the others.

Without speaking, the group must arrange itself "in line order" according to specified criteria. For example, from the shortest to the tallest, from the lightest color hair to the darkest, from the earliest birthday to the latest, etc.

Hide several "antique" and/or handmade objects in the classroom. (Dipped candles, hand made nails or brooms, rusty metal, pottery, etc) Students must locate hidden objects and identify characteristics that indicate age and/or craftsmanship.

Collect a variety of leaves from the schoolyard or neighborhood. Make leaf rubbings or prints and compare sizes and shapes.

Plant "mystery seeds." Try to identify through color, shape, size, and texture.

Mix sand, gravel, and soil in a jar with water. Shake the jar and allow contents to settle. Observe the layering that results. Which layers are important to the farmer?

Mount a display of woods and their uses, including construction and fire building.

162 BEST COPY AVAILABLE

MEASUREMENT

Locate Brookville on a street map. Calculate traveling time and distance from your school.

Plant seeds (lima beans) or root a plant (carrots, potatoes). Check growth progress by measuring sprouts with a tape measure. Plant vegetable sprouts in the Brookville garden.

Measure and cut a two foot length of string for each student or small group of students. Tie the string to form a loop and place it on the ground to designate an area. Examine the area within the loop. Count and compare different types of plants and animals. Examine the area with a hand lens.

Construct a rain gauge using a milk carton. Calibrate masking tape in 1/8 th inch increments. Record the rain fall from September through June. Consider the importance of this information to the farmer, for example.

Compare instruments used for measurement: past vs. present. Include instruments used to measure time, weight, and distance.

Compare the sizes and weights of the students, their handcrafted items (i. e. blacksmith hooks or nails), or any other collection of similar but unique objects. Determine averages.

Visit a cider mill or maple sugar operation. Calculate the number of apples needed to make a gallon of cider. How much sap is needed to make a quart of syrup?

Devise a system of measurement using parts of the body rather than instruments.

SEQUENCING

Photograph farm or craft procedures. Arrange photos in proper sequential order. For example, fertilizing, planting, watering, weeding, harvesting.

Draw flow charts of farm or craft procedures.

Use a time line to chart progress of activities related to the Homestead Ecology Experience at Brookville. Include pre-trip activities, visits to the site, and post-trip activities.

BEST COPY AVAILABLE

Research and locate photographs and/or written descriptions of your school or neighborhood twenty years ago. What changes are apparent? WHY? Research and/or hypothesize what differences forty, sixty, eighty, or one hundred years have made.

Create a color chain using natural materials. For example, during the fall, collect several leaves in the "red" family. Arrange and mount in sequence from the lightest to the darkest shade.

Visit a local pond or river. Design a water cycle chart.

Write a letter to a large coal, steel, or lumber company requesting information about the industry.

Trace the origins of the food on last night's dinner table. Identify the sun as the source of our food energy.

TIME CONCEPTS

Visit historic markers and local museums such as Garvies Point, The Gregory Museum, Old Bethpage Village Restoration, or the Sleepy Hollow Restorations.

Design and create a class mural depicting an historic event or scene.

Watch the television program, Little House on the Prairie. Compare past and current lifestyles of a twelve year old boy or girl.

Plan and create a class time capsule. Include current newspapers, advertisements, photographs, and students' school work.

Research and draw family trees. Interview family members and friends to determine direct lines to craftsmen, farmers, political figures, religious leaders, etc.

Investigate the origin of coal, its use in blacksmithing, and its value today.

Locate a tree stump that has been cut by man (even cut). Count the rings on the stump to determine the tree's approximate age. What progress has this tree "seen" during its lifetime?

Plant seeds in the classroom. Chart growth on a calendar.

In groups of three or four, act out "A Day in the Life of a Farmer," "A Day in the Life of a Blacksmith," etc. using paper bag skits. (Each group receives a bag with objects or props to be used for its skit.) Groups guess each other's occupation.

BEST COPY AVAILABLE